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Learning to expand internationally

Nadolska, A.

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**Learning to Expand Internationally: the Pace and Success
of Foreign Acquisitions**

Learning to Expand Internationally: the Pace and Success of Foreign Acquisitions

PROEFSCHRIFT

ter verkrijging van de graad van doctor aan de Universiteit van Tilburg, op
gezag van de rector magnificus, prof. dr. F.A. van der Duyn Schouten, in
het openbaar te verdedigen ten overstaan van een door het college voor
promoties aangewezen commissie in de aula van de Universiteit

op woensdag 1 februari 2006 om 10:15 uur door

Anna Nadolska

geboren op 30 januari 1977 te Poznan, Polen

PROMOTOR: Prof. dr. H.G.Barkema

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“Duc in altum!”
(Lk 5, 4)

When I came to Tilburg in late August 1999, I had never imagined that I would stay for 6 years (or longer) and that one day I would defend my PhD thesis. That idea had actually never crossed my mind and my life was beautiful and simple...

Now, when I look at this time and what followed I see how much has changed. In 5 years (1 year of the CentER Master program and 4 years of the PhD Program) I changed from someone who was closer to reading musical scores to someone who is reading models (even mathematical sometimes) and has to deal with econometrics on a daily basis! I have learned a lot. And probably even more importantly I have pushed myself to explore the areas I had not known existed and I have discovered life and myself in so many new dimensions.

One of the best guides in that process was my supervisor Harry Barkema. He has had a particularly tough job of continuously convincing me that I could do it and that I should not give up. During our countless discussions he helped me not only to develop my papers but also discover who I'm and what I want. He has never stopped making sure that I remain at least a little sane (has he succeeded?!), take one day off a week and pursue my passions and dreams.

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museums or exhibitions, watch countless movies (including black and white ones on a small laptop screen) and read novels. They were with me when I had to dig up my garden, and when I had to clue about panel data. They opened bottle of Champaign (or something stronger) when I needed it most. They all made sure I feel I'm alive!

And finally my parents. There are no words to express what I feel. Thank you so much for teaching me how to "Duc in Altum".

Anna Nadolska

Tilburg, December 2005

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Introduction

Chapter 1

Introduction

Chapter 1

The world's third largest retailer, Ahold, has based most of its international growth on acquisitions and appeared to be highly successful, with a clear strategic logic of acquiring upscale, often family-owned, well regarded regional chains (Business Week, 2000) and by being a "learning company" (Barkema, 2004). Ahold has had a policy of buying healthy companies with sound management, using their global presence to streamline their operations, while retaining a strong local identity, implementing the 'best practices' of one chain in other chains across the globe, and lending acquired companies its logistical capabilities (Barkema, 2004, Business Week 2000, 2004). Its management believed it had developed a unique capability of screening, selecting, and implementing acquisitions, perfecting its criteria and procedures to the point of being the best in the business (Barkema, 2004). However, Ahold was not aware of the fact that it underestimated the problems of entering different cultures (such as China, Argentina and Spain where many mistakes were made) and different (even related) industries (like for example the wholesale business in the US) and rushed into different foreign markets and industries confidently, all of which ended with dramatic results at the beginning of 2003 (Barkema, 2004, Business Week, 2004).

The story of Ahold is not exceptional or unrecognizable in today's world. Undoubtedly acquisitions have become one of the major strategic tools for growth of multinational corporations (Cartwright & Cooper, 1993, Morosini, Shane & Singh, 1998). Cross border mergers and acquisitions activity has continued to increase at a high pace during the past decade and a half and after a few years of decline, with rising stock markets, interest on debt at low levels and the recovering economy, the size and number of international acquisitions is rising again (UNCTAD, 2005).

However, as Ahold and many others learned the hard way, acquisitions involve problems, including coordinating and reconfiguring resources in an internationally dispersed network, transferring best practice across units, retaining key personnel and exchanging

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knowledge across geographically dispersed units (Anderson, Havila & Salmi, 2001, Cannella & Hambrick, 1993) and a lot of them fail or underperform (Datta, Pinches & Narayanan, 1992, Jensen, 1988, Markides & Oyon, 1998, Porter, 1987, Ravenscraft & Scherer, 1987).

Many companies understand today that they need unique capabilities to create and sustain a competitive advantage and to achieve superior performance in terms of their acquisitions, especially if they are to compete in a diverse and quickly changing world (Morosini, Shane & Singh, 1998). While it is known and accepted that learning from experience is one of the key ways of building such repositories of routines and knowledge (Cyert & March, 1963, Levitt & March, 1988, Levinthal & March, 1993, March, 1991, Nelson & Winter, 1982), our understanding of the relationship between acquisition experience and performance is not complete. Previous research has shown, for example, that the higher the experience with acquiring, the better the performance of the acquisitions will be (Fowler & Schmidt, 1989, Hayward, 2002, Hitt et al., 1998, Vermeulen & Barkema, 2001). At the same time other research claims that experience with acquisitions does not help to build the acquisition skills (Lahaey & Conn, 1990, Burton, Oviatt & White, 1994, Zollo & Singh, 2002). Finally, Halebian & Finkelstein (1999) suggest that the relation between acquisitions' experience and performance might be different for different levels of experience. Questions regarding which experiences could be useful for acquiring companies and in what way internationalizing companies benefit from them are still unanswered. This study aims to fill this gap by focusing on both the process of international expansion (frequency of international expansion by acquisitions) (c.f. Vermeulen & Barkema, 2002) as well as the acquisitions' successfulness.

In chapter 2 we analyze what experiences could be helpful in learning to acquire internationally and how companies learn to use them. We argue that in order to become a successful acquirer, companies have to learn two skills. The first one is to be efficient and

effective by developing routines for acquiring companies abroad. The second skill is to determine which routines should be applied to which problems and to which settings, in order to avoid misattribution of the prior experience (c.f. Halebian & Finkelstein, 1999, Levitt & March, 1988). We find that having the first type of routines (the “efficiency” routine) in place helps companies to increase the frequency of their acquisitions. Initially, however, internationalizing companies are not able to align the two kinds routines with each other, which causes a decline in foreign acquisitions performance. Finally, we suggest that when making international acquisitions, companies could benefit from their prior experience with international and domestic acquisitions as well as international joint ventures.

The findings of chapter 2 triggered a question regarding why is it that firms increase the frequency of acquiring abroad even though the right routines are not yet in place and companies are not fully equipped and skilled to do so. We deal with this issue more extensively in chapter 3. First, we develop an argument regarding how various managerial biases at different levels of the company’s acquisition experience influence the behavior of managers reflected in the number of foreign acquisitions per year that they are making. We suggest that underestimation of problems related to international acquisitions and overconfidence creates a tendency for companies to rush with international acquisitions, which is, in fact, increasing the likelihood of costly mistakes being made and acquisitions failing. When the accumulated problems can no longer be ignored, failed acquisitions are sold off, and companies learn. After this phase, foreign acquisitions ascend to higher levels than before, this time with an increasing success rate, making untimely international acquisitions’ divestitures increasingly unlikely. Second, we propose that international greenfields could also be a source of valuable experience for international acquirers and apply the mechanism of how international acquirers learn to acquire abroad to learning from previous experience with foreign greenfields as well.

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Finally, in chapter 4 we concentrate on the issue regarding how firms become successful with international horizontal acquisitions and how it is influenced by the prior experience with international horizontal and related acquisitions. We argue that firms acquiring in their core business abroad benefit from their prior international horizontal acquisitions as they provide the relevant information about the new foreign markets and cultures. Learning from international related acquisitions to make horizontal acquisitions abroad, requires more time, as next to dealing with new foreign markets, companies have to learn to transfer the knowledge from their related businesses. We find, however, that firms experienced in acquiring abroad in their core business are able to benefit from their experience with related acquisitions more easily.

Overall, by looking at both frequency and successfulness of acquisitions, the research presented in this thesis contributes to understating the process of international expansion by acquisitions. A core idea proposed and developed in this thesis, which is consistent with anecdotal evidence and with prior research, is that inappropriate generalizations of various types of prior experience are pervasive in the field of International Business, particularly for companies in the early stages of internationalization (see Perlmutter, 1969), and that those generalizations (as well as overconfidence stemming from them) are at the root of many failed foreign expansions. This leads to new theory, applied to the case of international acquisitions. Our theory treats the frequency and the success of international acquisitions separately, both conceptually and empirically. We develop the idea that the pace of the acquisition process increases with a company's experience, as cognitive effort is replaced by routines. In addition, we propose, building on the work of Levitt and March (1988) and Halebian and Finkelstein (1999), that the success rate of international acquisitions first decreases as the company misattributes previously acquired routines to new acquisitions but later increases as firms learn and develop the two essential types of routines (chapter 2), overcome hubris (chapter 3) or

learn how to transfer their knowledge from different (product and geographical) markets (chapter 4). Furthermore, we extend the implicit idea of previous research that companies only benefit from the same type of experience, i.e., only from international acquisitions when doing subsequent international acquisitions, to the idea that a whole array of previous experiences and routines can enhance the success of later expansions. We show that in managing international acquisitions firms may inappropriately attempt to use applications which have only surface similarities to previous acquisitions with routines developed from not only international acquisitions, but also from domestic acquisitions, of international joint ventures, international greenfields, as well as finer grained international acquisition experience (i.e. with foreign horizontal and related acquisitions). Hence, our study implies that knowledge and routines that previously perceived as helpful can, in fact, be treacherous, at least initially, and conversely seemingly different types of knowledge and routines, such as from domestic acquisitions, international joint ventures and greenfields can actually prove useful. The novel mechanisms uncovered in our study are important both from a theoretical perspective and from a practical angle. It might also have application beyond the domain of IB as companies are increasingly confronted with competitors introducing innovations in the domain of products, marketing, technology, and business models, rendering the domain of existing applications increasingly limited.

Chapter 2

How do companies learn to acquire internationally?

2.1. Abstract

In this paper we analyze what kind of experiences are needed by internationalizing companies to increase the successfulness of their international acquisitions over time. By testing the learning effects in two ways (i.e. by the frequency with which foreign acquisitions are made and by their successfulness) we provide an explanation of the relationship between learning from experience and foreign acquisition performance. Our results suggest that firms do not have one optimal speed of foreign expansion that remains fixed over their lifetime – we propose that when firms learn the pace of foreign expansions they can successfully increase. We also show that internationalizing firms might benefit from their experiences with domestic and foreign acquisitions as well as with foreign joint ventures when learning to make international acquisitions.

2.2. Introduction

Opening markets and digitization are pulling large corporations as well as small and medium-sized enterprises beyond their national borders and into a race against rivals in their industry to reach new foreign countries and regions first (Barkema, Baum & Mannix, 2002, Ghoshal, 1987, Hitt, Hoskisson, & Kim, 1997). One of the fastest ways to establish a presence in a foreign market is to buy a company in that market (King et al., 2004). To be able to keep up with the changing world and with the fierce competition and in order to overtake and outgrow the competitors, internationalizing companies face the challenge of learning to make international acquisitions frequently. However, pursuing an acquisition strategy as a way to enter foreign markets is risky and many acquisitions turn out to be unsuccessful (Datta, Pinches & Narayanan, 1992, Jensen, 1988, Markides & Oyon, 1998, Porter, 1987, Ravenscraft & Scherer, 1987), end in financial losses and divestures, or with damaged reputations of the acquiring firm and its managers (Bergh, 2001, Donaldson, 1990, Kaplan & Weisbach, 1992). The question is how firms can learn to acquire internationally? What experiences might prove useful for them? How often can internationalizing MNC acquire and yet stay successful?

Previous research has begun to answer these questions by concentrating mostly on learning from the companies' acquisitions experience (without making a distinction between foreign and domestic acquisitions; or in a domestic setting), that could potentially provide a basis for skills related to selecting and integrating an acquisition partner (Burton, Oviatt & White, 1994, Fowler & Schmidt, 1989, Hayward, 2002, Hitt et al., 1998, Lahaey & Conn, 1990, Vermeulen & Barkema, 2001, Zollo & Singh, 2002). To be successful in acquiring internationally, however, firms also need to master the skills of choosing and integrating the *foreign* targets and managing affiliates dispersed in unfamiliar foreign environments. Yet, although quite a vast body of literature is devoted to learning from acquisition experience, not

much focus has been placed on other possible sources of experience and knowledge that companies could benefit from to obtain the skills for making their international acquisitions (like for example experience with domestic acquisitions or foreign joint ventures).

Previous literature has pointed to several problems that firms might face when learning from their prior experience with acquisitions. First of all, due to a high probability of misattribution of previous acquisition experience (Haleblian & Finkelstein, 1999), the firms' ability to benefit and learn from that experience is (at least initially) constrained. The second problem is how frequently companies can acquire and stay successful. When a firm expands internationally by making acquisitions, for example, it can move fast by acquiring additional companies one after another, or even simultaneously, to gain market share and to establish a strong position in a relatively short period of time. Alternatively, it can take a more cautious approach, and not make subsequent acquisitions until it has accumulated more local experience, until market uncertainty becomes substantially reduced or until it has fully integrated the previously acquired companies. Organizational learning theory and internationalization theory suggest that companies have one optimal speed of expanding with a fixed number of expansions per year over time (Hayward, 2002, Vermeulen & Barkema, 2002), that allows them to learn from their previous experience and avoid the problems related to time compression diseconomies (Dierickx & Cool, 1989). As a result, research in that stream has taken a static approach to analyzing this problem and, thus, might not explain what the effect of learning, gaining and accumulating experience is in terms of the frequency of expanding.

In this paper we propose that in order to understand how organizations learn from their experiences it is not only important to consider how experienced a firm is at a particular point in time but also how many acquisitions companies can absorb to build workable and usable routines over time. Analyzing these two factors simultaneously might help to understand more

precisely why misattribution of experiences occurs, and what consequences it has for the behavior of a firm (i.e. how frequently the acquisitions are made) and performance of foreign acquisitions.

In this paper we build on the idea that when firms learn they develop two types of routines (c.f. Levitt & March, 1988). The first sort allows them to increase the efficiency of their acquisition process (automatize certain tasks and improve in performing them, etc.) that is built relatively easily and quickly and helps to increase the frequency of acquiring abroad. The second type of routines that companies have to develop helps them to routinely determine which routines should be applied to which problems and to which settings (Haleblian & Finkelstein, 1999, Levitt & March, 1988), yet is harder and more difficult to learn. We suggest that for inexperienced acquirers, when the second type of routine is not yet developed, the increase in the frequency of international expansion by acquisitions causes the decrease of their performance. We argue further that as internationalizing firms gain experience, they are able to develop those two sets of routines that jointly allow them to acquire more frequently and successfully at the same time. This in turn implies that there is not one optimal speed of international expansion by acquisitions that is stable over the lifetime of a company. Thus, through testing the learning effects in two ways (i.e. frequency and performance) we provide the explanation of the relationship between learning from experience and foreign acquisition performance.

Finally, our study attempts to identify other potential experiences that influence acquisition performance and from which internationalizing companies could learn to acquire internationally. First of all, as already mentioned, we suggest that firms that acquire abroad might benefit from their previous experience with foreign acquisitions. Secondly, we argue that skills related to selecting and cooperating with a partner (without dealing with the complexities of operating abroad) could be developed by learning from their domestic acquisitions. Finally,

we suggest that international joint ventures might help international acquirers to develop routines on how to cooperate with a foreign partner and how to deal with foreign organizational cultures within the boundaries of an organization.

2.3. Background

Acquisitions offer one of the fastest means of building a substantial presence in a foreign market (King et al., 2004). They help firms to achieve greater market power, overcome barriers of entry, enter new foreign markets quickly and finally to acquire new knowledge and resources (Vermeulen & Barkema, 2001). At the same time, benefiting from the potential opportunities that international acquisitions offer, poses a real challenge for internationalizing companies. The main difficulties come from the fact that the firm is exposed to diverse tastes, preferences, languages, cultures, business systems and practices typical for a foreign country and/or foreign partners in that country (Barkema et al., 1996, Johanson & Vahlne, 1977). Furthermore, firms pursuing acquisitions might encounter problems associated with the integration of acquisitions (Haspelagh & Jemison, 1991, Jemison & Sitkin, 1986), which is complicated by the differences in organizational cultures and management styles of the organizations involved, threats of layoffs, initial inequalities in compensation, authority superimposed on an acquired company and the increase in size of an acquiring company (Chatterjee, Lubatkin, Schweiger & Weber, 1992, Lubatkin, 1983.). Those problems become especially severe if firms engage in *international* acquisitions – where the difficulty of the acquisition integration is increased by the foreign and thus unknown aspects of different organizational and national cultures. Finally, companies acquiring internationally face problems connected to managing the international corporation consisting of many (acquired) subsidiaries in different countries.

Thus, to make international acquisitions and to become successful with them, companies have to develop skills and routines allowing them to overcome the above-mentioned problems. One of the potential sources of those skills could be the previous experience with acquisitions (Burton, Oviatt & White, 1994, Fowler & Schmidt, 1989, Harrison et al, 1991, Hayward, 2002, Hitt et al., 1998, Vermeulen & Barkema, 2001). However, learning from previous acquisitions experience is not an easy task, for two reasons. Firstly, inexperienced companies are likely to misattribute their previous acquisition experience (Haleblian & Finkelstein, 1999). It means that acquiring companies cannot distinguish between their previous acquisitions and the focal one. Consequently, they apply the same routines that seemed to work before to the situations to which they should not apply them. This, in turn leads to the decrease of acquisitions performance.

Secondly, international acquirers have to determine what the frequency of foreign expansion should be. On the one hand, when the business environment is characterized by fast changes, shortened product life cycles, and increased competition, faster speed in carrying out structural changes, in decision making, and in innovation or product development is generally associated with better organizational performance (Eisenhardt, 1989, Eisenhardt & Tabrizi, 1995, Judge & Miller, 1991, Schoonhoven et al., 1990, Stalk & Hout, 1990). Some researchers, on the other hand, have pointed out the downsides or “hidden costs” of speed (Crawford, 1992, Von Braun, 1990, 1991), such as excessive usage of resources (Crawford, 1992), speed traps (Perlow, Okhuysen & Repenning, 2002) and so on.

Although there is no consensus in the prior literature as to what the effect of speed of performing certain activities on organizational performance is, internationalization theory and organizational learning theory point clearly to the disadvantages of the fast expansion and suggest that companies have an optimal pace of expanding internationally (Vermeulen & Barkema, 2002). It has been argued that organizations learn when they collect second-hand

information and/or experiential learning, synthesize it into systematic knowledge, assimilate it into organizational memory, and finally institutionalize it into organizational routines (Crossan, Lane & White, 1999). This process, however, does not occur instantly and, thus, fast-paced expansion can be harmful because it intensifies the time compression diseconomies problem (Dierickx & Cool, 1989). Consequently, the imperfect decision-making, suboptimal time and attention, and lack of learning will make it difficult for a hastily established subsidiary to survive, grow, or profit (Hayward, 2002, Vermeulen & Barkema, 2002).

Finally, prior research has not explored other potential experiences that could be of use to international acquirers. It has concentrated mostly on experience with acquisitions and its influence on acquisition performances, while disregarding any other sources of potential experience that internationalizing companies could draw from.

In what follows we analyze the sources of useful routines for making international acquisitions. Specifically, we concentrate on experiences with prior foreign and domestic acquisitions and prior foreign joint ventures. We will build on the idea that since routinization of an activity is the most important and efficient form of storage of a firm's specific operational knowledge (Levitt & March, 1988, Nelson & Winter, 1982), while over time firms develop routines that consequently help them to economize on cognitive efforts and allow faster learning and, thus, help to increase the frequency of acquiring abroad (Cyert & March, 1963, Levinthal & March, 1993, Levitt & March, 1988, March, 1991, Nelson & Winter, 1982).

2.4. Theory and hypotheses

International acquisition experience might help internationalizing companies to develop routines on how to screen, select, and take over companies abroad, to determine what suitable levels of acquisition integration are, as well as to become more skilled in solving

administrative problems (Vermeulen & Barkema, 2001). Experienced international acquirers know when to acquire and when not to, realize when outside financial, legal or other resources are needed, and identify the key success factors for successful integration (Hitt et al, 1998). Thanks to experience with foreign acquisitions, companies get to know how much time it might take until the acquired company is fully integrated and operational, whether it is better to transfer some of the staff from the headquarters to the newly acquired subsidiary, and if so, who is essential at which stage of the acquisition integration process, etc. Finally, by drawing from their prior international acquisitions companies can learn how to perform all those activities in an international setting and operate as a multinational corporation (with subsidiaries scattered all over the world). Thus, prior international acquisitions provide a valuable source of experience based on which internationalizing acquirers can develop routines that help them to increase the efficiency of the acquisition process and increase the frequency with which they acquire abroad.

However, international acquisitions are complex events, with many dimensions in which they differ from each other (Zollo & Singh, 2002). This results in a situation when international acquirers learn from their previous experience to build routines for taking over companies abroad efficiently, but they still do not have the ability to apply that knowledge in the appropriate moments (i.e. do not have the ability to distinguish between their different acquisitions). Hence, the misattribution of experience and lack of ability to judge when to apply a routine and when not to, (initially) decrease the successfulness of international acquisitions.

As internationalizing companies accumulate experience with international acquisitions they become able to compare different deals, to draw conclusions and to observe emerging patterns. This can broaden the range of organizational experiences and stimulate the subsequent process of gaining knowledge, for example by increasing absorptive capacity

(Cohen & Levinthal, 1990), or by leading to new rules which entail new experiences with them (March et al, 2000). Moreover, learning results in developing the ability to apply the correct routines to the given problem or to a particular type of a deal. One of the effects of gaining experience with international acquisitions, therefore, is the ability of companies to learn and to remember previous experiences better, which builds their capability to acquire abroad, more quickly and successfully. In sum, we predict:

Hypothesis 1a: The number of international acquisitions per year is increasing as a function of prior experience with foreign acquisitions.

Hypothesis 1b: There is a U-shaped relationship between experience with foreign acquisitions and successfulness of international acquisitions.

The need to select a good acquisition target and its subsequent integration are the major causes of complexity when making an acquisition (Chatterjee, Lubatkin, Schweiger & Weber, 1992, Haspelagh & Jemison, 1991, Jemison & Sitkin, 1986, Lubatkin, 1983). Previous domestic acquisitions provide an excellent source of routines that companies could use to learn how to accomplish international acquisitions (Reuer et al, 2004). Domestic acquisitions, for example, allow a firm to learn how to cooperate with a target and how to handle a new separate entity in the organization without simultaneously having to deal with the complexity of a foreign environment (Barkema et al, 1997). Experience with domestic acquisitions could also help to develop routines for selecting acquisitions targets, setting up the financial criteria that potential targets should meet, determining how big the target companies should be, etc. Thus, domestic acquisitions can be an important stepping-stone for launching international acquisitions and

help internationalizing acquirers to relatively quickly develop necessary routines that increase the efficiency of their operations.

However, despite certain similarities, domestic and foreign acquisitions differ from each other. International acquisition deals have the unique features such as greater internal uncertainty (Gatignon & Anderson, 1988) and differences in cultures as well as legal, tax and regulatory environments (e.g. Markides & Ittner, 1994) – characteristics that experience with domestic acquisitions does not have (or not to such a degree). At such levels of similarity between different organizational actions (as for domestic and foreign acquisitions) judgments about whether to apply the previous experience or not are likely to be difficult, at least initially, and the likelihood of making an error in applying past experience to the focal activity is high (Zollo & Reuer, 2002). It means that it might be difficult for internationalizing companies to build a routine for distinguishing appropriately between their domestic and foreign acquisitions, which has two implications. First, as international acquirers have developed the efficiency routines only, they will increase the speed with which they acquire internationally. Second, the performance of the foreign acquired subsidiaries decreases since the second type of skills has not been developed and international acquirers misattribute their experiences.

As firms gain some more experience with domestic acquisitions and get more international exposure, they learn to perceive both surface and underlying features of their experiences (Chi, Feltovich & Glaser, 1981), and distinguish the underlying differences between the domestic and foreign deals. Consequently internationalizing acquirers develop a set of routines that could be applicable either in the domestic or to a foreign setting. They also develop a second type of routines that allows them to routinely distinguish between their acquisitions and determine *which* routines should be applied and *when* they should be used.

Thus, the successfulness of foreign acquisitions will first decrease (since firms misapply their experiences expand too fast) and only afterwards, when firms are able to

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generalize from their experiences, domestic acquisitions become useful for international acquirers and the performance of the foreign acquisitions increases.

Hypothesis 2a: The number of international acquisitions per year is increasing as a function of experience with domestic acquisitions.

Hypothesis 2b: There is a U-shaped relationship between experience with domestic acquisitions and successfulness of international acquisitions.

Whenever a firm is acquired in a foreign country, both national and corporate cultures have their impact on the venture, since they are (to some extent) transmitted via institutionalized organizational practices, such as decision making procedures and corporate policies (Brown, Rugman & Verbeke, 1989, Buckley & Casson, 1988, Bueno & Bowditsch, 1989). Thus, a major source of difficulties pertaining to international acquisitions is the necessity to cooperate with different, foreign acquisition targets and handling different (foreign) cultures within one organization. The capability to deal with foreign partners and different cultures within one's own company (without a need to integrate that partner into a company at the same time) can be developed by participating in international joint ventures (Anand & Khanna, 2000, Dyer & Singh, 1998,). Thus, learning from prior foreign joint venture experience could help companies to develop routines that might prove to be useful when buying a company abroad, and to do it more quickly and successfully.

However, the large body of evidence that firms selectively use alliances over acquisitions in well-defined contexts (Balakrishnan & Koza, 1993, Hennart & Reddy, 1997, Kogut & Singh, 1988) indicates that knowledge obtained in managing alliances may not be suitable for acquisitions context (Zollo & Reuer, 2002). Zollo and Reuer (2002), for example,

suggest that the development of organizational routines specific to the handling of alliance processes would be beneficial to the performance of the focal acquisition if the latter were managed in ways that resemble the typical handling of alliances (with low to modest structural integration and resource replacement levels). However, when acquisitions are managed with higher levels of integration and replacement, alliance experience can adversely affect the performance of the focal acquisition (Zollo & Reuer, 2002). It means that it might be difficult for companies to distinguish appropriately between the routines that worked well in international joint ventures setting and those that might be appropriate for foreign acquisitions. Thus, despite having the routines that allow them to increase the frequency of acquiring abroad, the lack of ability to distinguish between foreign acquisitions and joint ventures makes it more likely that they will often misuse their routines, misapply their experiences and misjudge the situations when deciding to apply a certain routine. Such a misattribution of experience leads to the decrease of the foreign acquisitions' the performance.

Accumulation of experience with international joint ventures helps international acquirers to learn to perceive both surface and underlying features of their experiences (c.f. Chi, Feltovich & Glaser, 1981), and distinguish the underlying differences between those two forms of foreign direct expansions. In this way a second set of routines is developed that enables routinely distinguishing between acquisitions and joint ventures and determining of which routines should be applied and when. This helps to increase the performance of foreign acquisitions over time and the benefit from experience with foreign joint ventures. Thus, we predict:

Hypothesis 3a: The number of international acquisitions per year is increasing as a function of experience with international joint ventures.

Hypothesis 3b: There is a U-shaped relationship between experience with international joint ventures and successfulness of international acquisitions.

2.5. Methodology

2.5.1. Data

We tested the above hypotheses on a sample of nonfinancial firms listed on the Amsterdam Stock Exchange in 1993. The firms on this stock exchange are divided into two segments – “main funds” (large firms that are frequently traded) and less traded funds (smaller firms that are infrequently traded). The first segment contains about 35 firms, the second 230 firms. We selected our firms from the main funds segment. In the process of screening the companies we observed that the four largest Dutch companies (Royal Dutch Shell, Unilever, Philips and Akzo Nobel) form a distinct group in terms of their breadth of activities, scope and size. These firms are incorporated in the Netherlands, but an overwhelming proportion of their investments and business operations take place outside the Netherlands. These firms also differed significantly from the other firms in the population in terms of the breadth of their activities, their size, and so on. Royal Dutch, for example, represented almost 50% of the capitalization of the Amsterdam Stock Exchange. Hence, we decided to exclude them from our sample. In this way we obtained our longitudinal database of 25 firms over 32 years.

The database contained all foreign expansions (acquisitions, joint ventures and greenfields) included in the annual reports of the firms between 1966 and 1998. This window was chosen because the FDI of these firms began to increase around the mid-1960s or later, starting from relatively low levels of the degree of their internationalization. The companies in our sample were relatively large companies (the average number of employees was 11,394 and their average sales amounted to NLG 3,109 billion) that operated in a wide variety of countries

and industries (including manufacturing office equipment, precision machinery, paper and packaging, food products, brewing, publishing, retailing, trading etc). Altogether in the 32-year period, the 25 companies made 1087 foreign acquisitions (228 of them failed). On average each company made 1.59 foreign acquisitions abroad per year, with standard deviation of 2.42 acquisitions per year. The average experience with foreign acquisitions, domestic acquisitions and joint ventures coming close to, respectively, 13 (with the standard deviation of 17.30) and 3 (with standard deviation of 3.69) over the study period.

2.5.2. Variables

Dependent variables

Number of foreign acquisitions in a particular year. To measure the frequency of internationalization by acquisitions we constructed a variable that counts the number of acquisitions made abroad by each company in any given year. This measure reflects the number of deals that a company is making in a given year and the higher the number of deals the higher the frequency of internationalization by means of acquisition. An acquisition was defined as a takeover of an existing company or any of its business units (c.f. Barkema & Vermeulen, 1998, Vermeulen & Barkema, 2001) .

Longevity of foreign acquisitions. Acquisition success was defined in terms of whether an acquisition was divested (“unsuccessful”) or retained (“successful”), as a few successful acquisitions are divested and few unsuccessful acquisitions are retained (Bergh, 1997, Hamilton & Chow, 1993, Porter, 1987, Ravenscraft & Scherer, 1987). Based on this information we constructed our second dependent variable - *longevity of foreign acquisitions* that was defined as the number of years a foreign acquisition persisted.

The survival/divestiture representation of acquisition outcome has often been criticized (Cannella & Hambrick, 1993). However, the usually preferred financial measures of an

acquired company (e.g. Cannella & Hambrick, 1993, Very et al, 1997) are not available in our case, because multinational companies do not usually report the performance of the acquired company per se. Consequently, the aggregated performance of the acquiring company does not reflect the success of the acquisition as this measure could also include the contributions of other business lines and other subsidiaries/expansion modes.

Moreover, by measuring acquisition outcome in a broader manner than financial performance, we have the opportunity to capture nonfinancial criteria, which are also important antecedents to acquisition successes (see Bergh, 1995, Duhaime & Grant, 1984, Hamilton & Chow, 1993). Survival/retention of an acquisition has been shown to reflect acquisition success (Bergh, 2001, Boot, 1992, Kaplan & Weisbach, 1992), as there is a lot of evidence that most unsuccessful acquisitions are divested and successful ones are retained (Duhaime & Grant, 1984, Hamilton & Chow, 1993, Ravenscraft & Scherer, 1987). Finally, survival and divestment of acquired companies are also outcomes valued highly by executives and shareholders (Alexander, Benson & Kampmeyer, 1984, Kaplan & Weisbach, 1992).

Independent variables

Experience with international acquisitions. This variable was measured as the cumulative number of prior foreign acquisitions since 1966 (the beginning of our window of analysis).

Experience with domestic acquisitions. This variable was measured as the number of prior domestic acquisitions since 1966.

Experience with international joint ventures was measured as a number of prior foreign joint ventures since 1966. Joint ventures were defined as expansions that the focal company set up and owned jointly with another company.

Control variables. A number of control variables were included in the analysis. First, we controlled for the experience with foreign greenfields (measured as the number of prior

foreign greenfields of the focal firm since 1966), since companies may have used this knowledge and the capabilities derived from such experience when making acquisitions abroad. An expansion was called a foreign greenfield if a subsidiary was newly formed in a given market by the focal company. For the same reasons as in the case of other experience variables we lagged this variable by two periods. Second, due to the fact that managers of highly profitable firms may use the firms' free cash flow for acquisitions of other companies to increase their power, prestige, and salary, even if acquisitions do not enhance firm value (Jensen, 1986), we controlled for the firm's profitability, using the firm's return on assets or ROA (e.g. Hitt et al, 1997). Next, we controlled for firm size (since in general larger firms have more resources for expansion). We controlled for it using the logarithm of the firm's number of employees. We also controlled for product diversity of the firm by including a variable that determines the total number of businesses in which a mother company is active each year. Furthermore, we wanted to assure that both curves are not a result of macroeconomic effects, rather than the hypothesized learning effects. Thus, we used a control variable: the growth of the Dutch market (measured as the growth of GNP one year before the acquisition was made), since growth of a home market may influence the number of acquisitions that companies are willing to make. We also wanted to control for the possibility that a change of the acquisition strategy would be a result of a change of the CEO. Thus, we included a variable that measures the number of years that a manager has been a CEO (CEO tenure) and a dummy variable to indicate whether a CEO of a focal company has changed. Finally, to take into account the overall trends in the economy, fashions (when all the firms are acquiring rapidly), or the possibility that making acquisitions in 1998 was not as difficult and unusual as it was in 1966, we also included 5-year time dummies. Please see Table 2.1.

Table 2.1. Means, standard deviations and correlations

Variables	Means	S.D.	1	2	3	4	5	6	7	8	9	10
1. Number of foreign acquisitions per year	1.353	2.190										
2. Experience with foreign acquisitions	12.249	16.959	0.616									
3. Experience with domestic acquisitions	11.972	12.505	0.542	0.750								
4. Experience with foreign joint ventures	11.972	2.190	0.217	0.504	0.356							
5. Experience with foreign greenfields	5.179	7.138	0.294	0.519	0.232	0.565						
6. ROA	0.054	0.074	0.186	0.182	0.231	0.055	0.084					
7. Firm size	8.919	0.905	0.180	0.332	0.374	0.282	0.161	-0.017				
8. CEO tenure	10.134	6.456	0.034	0.054	-0.021	0.111	0.157	-0.005	0.242			
9. CEO change dummy	0.113	0.317	0.054	0.078	0.075	-0.041	-0.027	-0.030	0.047	0.100		
10. GNP growth	0.054	0.125	-0.055	-0.100	-0.099	-0.096	-0.070	0.043	-0.047	-0.004	-0.044	
11. Product diversity	16.015	10.329	0.023	0.120	0.223	0.206	0.116	-0.152	0.342	-0.007	0.022	0.003

2.5.3. Analysis

Negative Binomial Regression

The number of acquisitions in a particular year is a count variable with non-negative integer values only, many of which are equal to zero. The linear regression model assumptions of homoscedastic, normally distributed error terms, are thus violated. In such situations, Poisson regressions are often used to analyze count data (e.g. Blundell, Griffith & Reenen, 1995, Hausman, Hall & Griliches, 1984). A Poisson process assumes, however, that the event of interest occurs at some rate over the observation period. Such models are fairly restrictive and require the mean and variance to be equal. However, if observations within a year are not independent, the variance may be greater than the mean. Negative binomial regression generalizes the Poisson model by allowing the rate of underlying processes to vary across observations according to a gamma distribution and thus we use this approach to test our hypotheses.

In this paper we used firm fixed effects controls. Firm effects control for the unobserved heterogeneity (stemming from different managerial skills, management know-how or organizational culture and other factors that are not explicitly taken into account by the model). In other words, the firm fixed effect takes into account factors that differ across firms, but that are relatively stable over time within firms.

To deal with the potential problem of simultaneity we used a two period lag for experience with foreign and domestic acquisitions as well as with foreign joint ventures. Since absorptive capacity refers not only to the assimilation of information but also to the ability to exploit it, companies need some time to understand the newly acquired experience to be able to put it to commercial use (Cohen and Levinthal, 1990). Hence, a two-year lag (i.e., a minimum of one year between the last acquisition experience and the new acquisition) seemed justified.

An alternative would be to follow Hausman, Hall and Griliches (1984) and use a quasi-difference approach to construct moments that are independent of the fixed effects. However, this approach was not adopted here since the choice of instruments is often a problem with such a GMM approach, as weak instruments may cause trouble when trying to solve a simultaneity bias problem (Hahn & Hausman, 2002).

Survival analysis

The hypotheses concerning the effect of previous experience with foreign and domestic acquisitions as well as foreign joint ventures on successfulness of the acquired subsidiary abroad were tested using survival analysis, or event history approach.

Parametric estimates of the hazard rate require assumptions about the effect of time (in our models, age) on failure. However, some of our explanatory variables i.e. operating experience, increase as the acquisition ages. Therefore, since the dependence of subsidiary mortality on age is unknown, we estimated the proportional hazard model following the Cox partial likelihood approach, as this semi-parametric model does not require assumptions about this effect. We chose the Cox model because of its flexibility. Unlike discrete time models, such as the log-normal or Weibull models, Cox model does not require identification of a specific, distinct hazard function. For each foreign acquisition, an event is registered upon failure. The dependent variable in this type of analysis is the instantaneous rate of subsidiary dissolution, which is based on the information regarding whether or not an affiliate is still in existence and how long it has persisted.

The positive parameter estimates for a given variable means that larger values of this variable increase the probability of acquisition failure. We allow the explanatory variables to be time-varying, which results in multiple observations for each of the analyzed subsidiaries.

To account for possible dependence between different observations corresponding to the same subsidiary, we allow for clustering, which treats the observations to be independent across subsidiaries, but that does not require different observations on the same subsidiary to be independent. Finally, we also estimated a robust coefficients covariance matrix. To control for the possible firm specific effects that are relatively stable over time and vary across firms and may have an influence on the way a given organization manages its subsidiaries we included firm dummies in our Cox regressions¹.

2.6. Results

Tables 2.2. and 2.3. provide the statistical results of the hypotheses tests. Models 1 and 3 present the estimates of negative binomial regression and survival analysis, respectively, with control variables only. Models in table 2.3. (the Cox regression) are represented in the hazard rate formulation, which in the case of survival analysis, is the reverse of longevity. The results of survival analysis with control variables only (model 3) indicate that firm size and product diversification of a mother company have a significant relationship to the acquisition outcome (at $p < 0.001$ level), while experience with foreign greenfields has a significant positive impact on the hazard of acquisition dissolution ($p < 0.1$ level).

¹ Firm dummies here are defined at the parent company level (not at the subsidiary level).

Table 2.2. Results of Negative binomial regression models

	Model 1		Model 2	
<i>Test of hypotheses</i>				
Experience with domestic acquisitions ^e			0.095 *	(0.044)
Experience with foreign JV ^e			-0.015	(0.021)
Experience with foreign acquisitions ^e			0.055 *	(0.028)
<i>Control variables</i>				
Experience with foreign greenfields	-.013	(0.012)	-0.014	(0.012)
ROA	.156	(0.514)	0.171	(0.503)
Firm size ^e	.218 †	(0.154)	0.194	(0.164)
CEO tenure	.001	(0.008)	0.002	(0.008)
CEO change dummy	.006	(0.137)	-0.003	(0.137)
GNP growth	-.578 †	(0.382)	-0.520	(0.378)
Product diversity	-.001	(0.012)	-0.012	(0.012)
Constant	-.002	(1.388)	-0.015	(1.458)
Log-likelihood	-823.019		-817.187	
Wald test χ^2	162.29		168.05	
P-value χ^2	0.0000		0.0000	
No. of observations	630		630	

† p<0.10, * p<0.05, ** p<0.01, ***p<0.001

standard errors in parentheses

^e variable is a logarithm

time dummies not shown

Model 2 shows the results for the full negative binomial regression model. Hypothesis 1a predicts that the number of foreign acquisitions per year will increase as a function of the experience with foreign acquisitions. As can be seen, in Model 2 the coefficient for prior experience with foreign acquisitions is positive and significant at p<0.05 level. Thus, our hypothesis regarding the shape of the relationship between the experience with foreign acquisitions and the number of foreign acquisitions per year is statistically supported.

Chapter 2

Experience with domestic acquisitions was also hypothesized to positively influence the number of foreign acquisitions per year (hypothesis 2a). As can be seen, in Model 2 the coefficient for prior experience with domestic acquisitions is positive and significant at $p < 0.05$ level. Thus, our hypothesis regarding the shape of the relationship between the experience with domestic acquisitions and the number of foreign acquisitions per year is statistically supported.

Hypothesis 3a states that a firm's experience with foreign joint ventures causes an increase in the number of their foreign acquisitions per year. As reflected in table 2.2. the coefficients of linear effects of experience with foreign joint ventures is however not significant, which does not support our hypothesis.

Results of the survival analysis are presented in model 4.

Table 2.3. Results of Cox regression models

	Model 3		Model 4	
<i>Test of hypotheses</i>				
Experience with foreign acquisitions			0.034 †	(0.331)
Experience with foreign acquisitions^2			-0.0005**	(0.184)
Experience with JV			0.088	(0.028)
Experience with JV^2			-0.0004 †	(0.004)
Experience with domestic acquisitions			0.054*	(0.228)
Experience with domestic acquisitions^2			-0.0005†	(0.166)
<i>Control variables</i>				
ROA	-1.625	(1.384)	-3.413 *	(1.662)
Firm size	-0.383 ***	(0.115)	-0.568 ***	(0.137)
CEO tenure	-0.005	(0.011)	0.007	(0.012)
Product diversity	0.042 ***	(0.011)	0.024 *	(0.011)
Experience with foreign greenfields	0.151 †	(0.089)	0.079	(0.108)
Log-likelihood	-817.866		-800.579	
LR test χ^2	77.03		111.61	
P-value χ^2	0.0000		0.0000	
No. of observations	7421		7421	

† p<0.10, * p<0.05, ** p<0.01, ***p<0.001
 standard errors in parentheses
 firm and time dummies not shown

In hypothesis 1b we expect a curvilinear (U shaped) relationship between a firm's experience with foreign acquisitions and the successfulness of foreign acquisitions. The coefficient corresponding to the linear effect of the experience with foreign acquisitions is positive and significant ($p < 0.1$) and the coefficient for the squared effect of experience with foreign acquisitions is negative and significant ($p < 0.01$). Jointly these results indicate that inexperienced acquirers rushing with their acquisition process indeed cause the hazard of subsidiary dissolution to be high for low values of experience with foreign acquisitions. The hazard of failure first increases until it reaches the maximum for the value of 38 of experience with foreign acquisitions. Subsequently, the hazard decreases with higher levels of experience in acquiring foreign targets (see Figure 2.1.). This supports hypothesis 1b.

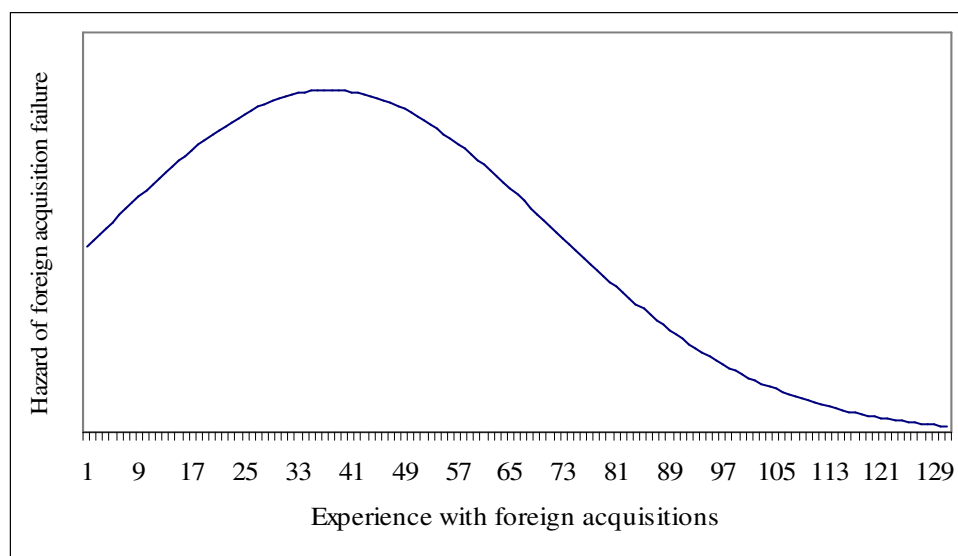


Figure 2.1. Relationship between experience with foreign acquisitions and the hazard of foreign acquisition failure

Next, hypothesis 2b posed that the relationship between experience with domestic acquisitions and the successfulness of an acquired subsidiary abroad is U shaped. The coefficient corresponding to the linear effect of the experience with domestic acquisitions is positive and significant ($p < 0.05$) and the coefficient for the squared effect of experience with

domestic acquisitions is negative and significant ($p < 0.1$). Jointly these results indicate that inexperienced acquirers rushing with their acquisition process indeed cause the hazard of subsidiary dissolution to be high for low values of experience variable. The hazard of failure first increases until it reaches the maximum for the value of 57 of experience with domestic acquisitions. Subsequently, the hazard decreases with higher levels of experience in acquiring domestic targets (see Figure 2.2.). This supports hypothesis 3b.

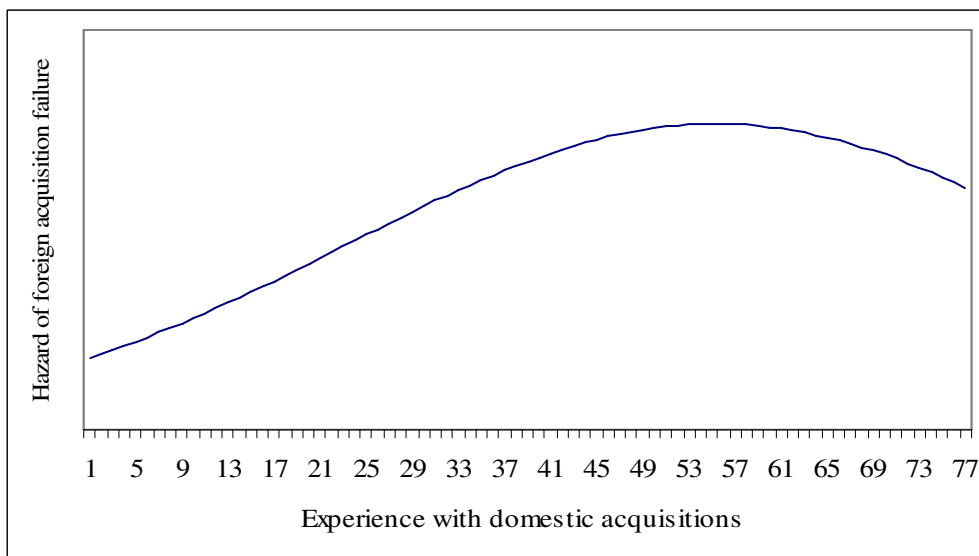


Figure 2.2. Relationship between experience with domestic acquisitions and the hazard of foreign acquisition failure

Finally, in hypothesis 3b we presumed a U shaped relationship between experience with foreign joint ventures and the successfulness of the acquired subsidiary abroad. As expected, the coefficient for the linear effect of experience with foreign joint ventures is positive and insignificant and the coefficient for the squared effect of experience with foreign joint ventures is negative and significant ($p < 0.1$). The hazard of foreign acquisition failure is increasing until value of 11 of experience with foreign joint ventures. Subsequently, the hazard decreases, for higher levels of experience in making foreign joint ventures (see Figure 2.3.), which supports our hypothesis.

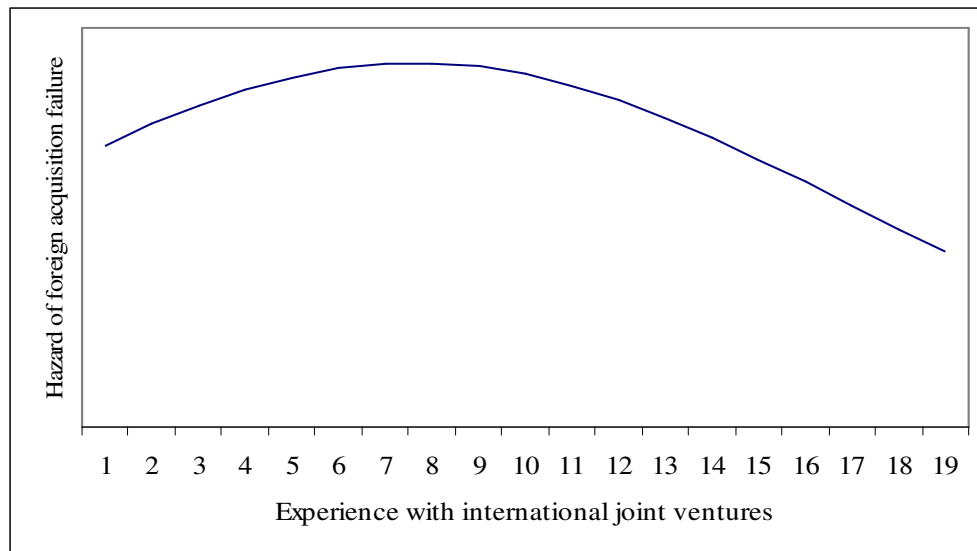


Figure 2.3. Relationship between experience with foreign joint ventures and the hazard of the foreign acquisition failure

2.7. Discussion

International acquisitions have become one of the most important foreign entry modes, yet many of them still fail, creating dilemmas about how to decrease the risks attached to them. To help to improve our understanding of these problems we asked several questions: how can firms learn to acquire internationally? what experiences might prove useful for them? how frequently can organizations acquire and stay/become successful? Our study was designed to answer these questions. In doing so, we focused on the literature on learning from prior acquisition experience (Haleblian & Finkelstein, 1999) and on the characteristics of the internationalization process (Vermeulen & Barkema, 2002) as jointly they provide the perspective and background to analyze the problems of this study.

The study results show that experience with foreign and domestics acquisitions positively influences the frequency of acquiring abroad, while the relationship between prior (foreign and domestic) acquisition experience and foreign acquisition performance is U shaped. We explain these results by arguing that when firms learn, they develop two types of

skills: 1) for performing acquisition process tasks more efficiently and 2) for distinguishing different investment situations (judging when it is appropriate to apply a given routine). The first type of skill is developed relatively faster, which encourages companies to acquire more frequently. Yet, due to the fact that international acquirers do not have the second skill initially (and hence misattribute their prior experiences), the performance of the foreign acquisitions decreases. Over time, as organizations accumulate sufficient experience, develop the two sets of routines and learn to distinguish between the experiences and different organizational actions, they are able to increase the performance of their acquisitions, as a function of their previous experiences, and are able to acquire frequently at the same time.

Quite intriguing, however, we found no support for the idea that the experience with foreign joint ventures helps companies to increase the frequency of acquiring internationally. While foreign joint venture experience has the predicted effect on performance of foreign acquisitions (U shaped), it does not help acquirers to increase the frequency with which they acquire. One potential explanation for these results could be that there might be a substitution effect between international joint ventures and international acquisitions as a way to enter foreign countries (c.f. Chi, 1994, Hennart & Reddy, 1997, Reuer & Koza, 2000)

The results of this study extend the findings of Halebian & Finkelstein (1999) who suggested that inexperienced acquirers misattribute their previous experiences, which leads to the decrease of the acquisition performance; only over time, when firms learn when to generalize and when to distinguish their experiences they are able to appropriately use the previous acquisitions experience. By drawing from organizational learning literature and internationalizing process literature we are able to explain *why* the misattribution of experiences occurs and what kind of consequences it has for the behavior and performance of a firm. In this paper we also extend this logic to other types of experience that might be of use

for international acquirers (i.e. previous experience with foreign and domestic acquisitions and with foreign joint ventures).

This paper contributes also to the literature on learning from previous acquisitions experience that has previously lead to inconsistent results varying from positive (Fowler & Schmidt, 1989, Hayward, 2002, Hitt et al., 1998, Vermeulen & Barkema, 2001), to negative or non-existent (Burton et al, 1994, Lahaey & Conn, 1990, Zollo & Singh, 2002). We find that the relationship between prior experience with foreign and domestic acquisitions and with foreign joint ventures first negatively influence the foreign acquisition performance, yet at higher levels of experience this relationship becomes positive. In this way, and using a different method for measuring the performance of acquisitions, we also find a U shaped relationship between experience and performance (c.f. Halebian & Finkelstein, 1999).

Finally, we add to the stream of literature on the internationalization process that has suggested that companies have one optimal pace with which they should expand (Vermeulen & Barkema, 2002). We suggest that if companies learn and if they develop appropriate routines they will be able to economize on their cognitive efforts, and thus increase the frequency of making their expansion abroad. With this we suggest that companies do not have one optimal pace of international expansion which is stable over time.

Naturally, this study is not without limitations. First, our study explored firms head-quartered in a single country (the Netherlands), which raises the issue of generalizability. Although doing single country studies also has advantages (in terms of controlling for potentially confounding influences), additional empirical research using samples from other countries or multiple countries would clearly add to the current study. Absorptive capacity may for instance, be influenced by home country characteristics, national culture, and so on. Future research may provide more insights in this respect.

How do companies learn to acquire internationally?

Furthermore, we treated the experience with acquisitions (both domestic and foreign) as homogenous, while this experience is rather heterogeneous as different types of acquisitions (horizontal, related, vertical and unrelated) might provide variations in learning rates.

Finally, the firm's ability to learn from previous experience may vary with the firm's organizational characteristics. For instance, it may depend on the characteristics of its top management team, or its organizational structure. Future research uncovering how these and other factors influence the relationship between previous experience and acquisition performance would clearly complement the current study as well.

Chapter 3

The speed and success of international acquisitions: the learning perspective

3.1. Abstract

This study examined the dynamics of the process of expansion by acquisitions by internationalizing firms on a sample of 1087 international acquisitions. By taking into account behavioral and cognitive aspects that have an impact on managerial decision to undertake an acquisition we provided insights into the way in which organizations learn and into the process of expansion by acquiring abroad. The results suggested that the pace of making foreign acquisitions is first increasing, then decreasing and subsequently increasing again as a function of experience with international acquisitions and as a function of experience with international greenfields. We also find a U shaped relationship between experience with international acquisitions and greenfields and foreign acquisitions performance.

3.2. Introduction

Buying a company abroad and its subsequent integration are complex and difficult tasks and, thus, many international acquisitions turn out to be unsuccessful (Datta, Pinches & Narayanan, 1992, Jensen, 1988, Porter, 1987, Ravenscraft & Scherer, 1987). Very often they end in financial losses and divestitures, damage of the reputation of the acquiring firm and its managers and dismissal of executives (Bergh, 2001, Donaldson, 1990, Kaplan & Weisbach, 1992). At the same time, the number of foreign acquisitions has been steadily increasing over the past decade. Their value rose from less than \$100 billion in 1987 to \$1144 billion in 2000 and after a slow down at the beginning of the 21st century, we observe another rise in acquisition activity (UNCTAD, 2005). If acquisitions are becoming popular again, even though history shows us that so many fail, then why do companies continue to undertake these risky actions? What is the dynamics of the process of expansion by acquisitions by internationalizing firms?

Prior studies have begun to address these questions by focusing mainly on motivations for a *single* acquisition and have lead to inconsistent findings. On the one hand, studies anchored in the rational choice perspective have pointed to economic explanations of acquisitions motives such as financial synergies used to lower the acquirer's costs of capital (Chatterjee, 1986, Singh & Montgomery, 1987), governance efficiencies (Dundas & Richardson, 1980, Hill & Hoskisson, 1987), and managerial desire for prestige, power, salary and job security that comes with managing large companies (Amihud & Lev, 1981, Baumol, 1967, Marris, 1964, Williamson, 1963). This research has portrayed an executive as a rational decision maker, who is surveying an efficient market place for strategically advantageous acquisition opportunities. On the other hand, another stream of literature has suggested that due to recent organizational success, media praise for CEO, a CEO's perceived self-

importance and weak board vigilance (Hayward & Hambrick, 1997) managers may not be rational in their choices with respect to acquisition targets and, thus, often make mistakes in assessing what they deem to be good acquisition candidates (Hayward & Hambrick, 1997, Roll, 1986).

However, both streams of previous research on acquisitions motives do not recognize that acquisitions may occur multiple times in an organization's history and have neglected the impact of organizational learning and experience on a decision to buy a company and on the process of international expansion by acquisitions. The literature that did acknowledge the impact of acquisition experience on performance has pointed to the problems associated with the correct understanding of prior experience with acquisitions (i.e. its misattribution) (Haleblian & Finkelstein, 1999, Hayward, 2002, Hitt et al, 1998, Vermeulen & Barkema, 2001). Very little is known, however, about consequences of managerial biases and limitations for the way in which organizations learn and for the frequency and the successfulness of acquiring firms abroad.

To address these limitations, in this paper we focus on international acquisitions made over the life of the company. We propose that the kind and amount of experience that organizations have might influence their eagerness to acquire abroad. First, we develop an argument about how various managerial biases at different levels of the company's acquisition experience influence the behavior of managers reflected in the number of foreign acquisitions per year that they are willing to make. We argue that due to overconfidence, self-serving bias (Langer, 1983), misattribution (Haleblian & Finkelstein, 1999) and illusion of control (Bradley, 1978, Schelker, 1980) the organizational learning process is constrained. More specifically, we hypothesized that due to these four reasons at low levels of experience firms make their acquisitions at a very high frequency (make a lot of acquisitions per year). This, however, negatively influences the successfulness of their foreign acquisitions. The

deficient performance experiences (after a period dominated by unjustified euphoria) make companies realize their mistakes, carefully consider and examine all the past experiences, and learn from them. We claim that only then firms are able to speed up their international growth through acquisitions, this time, however, more successfully. Second, we show that international greenfields could also be a source of valuable experience for international acquirers and we apply the mechanism of how they learn to acquire abroad to learning from previous experience with foreign greenfields as well.

3.3. Theory and hypotheses

Organizations are shaped by complex learning processes that enable them to build an organization-wide understanding and interpretation of their environments (Argyris & Schon, 1978, Starbuck & Milliken, 1988) as well as to develop mental associations, cognitive systems and memories that are shared by members of an organization (Hedberg, 1981). A key role in molding organizational learning is played by the strategic-level managers (Daft & Weick, 1984) who observe and interpret the environment and take decisions by transforming their understandings of the reality into policies that govern organization's activities. In this way managers have a considerable influence on the strategic direction of a firm and the nature of corporate strategy (including making acquisitions) (Hambrick & Mason, 1984). However, the managerial abilities to consider all the information from their environments are limited (Simon, 1957) and subject to several biases stemming from managerial fantasies and their neurotic styles (Kets de Vries & Miller, 1984) that cause various organizational inefficiencies.

Tversky & Kahneman (1974), for example, suggest that when making forecasts about a successful strategy, decision-makers are often not sensitive to the amount of experience they hold. This makes them overly confident about their predictions about the direction and actions

that companies should take in the future. Such predictions (and hence strategies) are oftentimes based on a small amount of observations, as decision makers feel that this small sample of experience that they have is already representative and could form a basis for building a future strategy (Tversky & Kahneman, 1974). In other words, it suggests that inexperienced companies may base their expectations and strategies on a small number of foreign acquisitions, while implicitly and confidently assuming (and acting as if) they have already accumulated sufficient amount of knowledge about acquiring abroad.

Furthermore, since managers are often promoted on the basis of performance (which implies that being successful at each subsequent stage of the corporate ladder is a necessary condition for reaching the higher position within a company) they might fall into the trap of illusion of control - i.e. excessive confidence in their ability to produce positive outcomes (Langer, 1983). This creates a partly unjustified self-confidence among executives and might lead them to overestimate the extent to which they can control the risks that their organizations face (March & Shapira, 1987). This in turn could make companies believe that whatever they do, including acquiring abroad, will lead to success.

Finally, managers are subject to a self-serving bias (Bradley, 1978, Taylor & Brown, 1988). Because of it executives tend to attribute success to personal factors and failure to external, situational (environmental) causes (Wagner & Gooding, 1997). Such a tendency occurs because people are motivated to protect their self-esteem, maintain a sense of mastery over their environment, or project favorable self-images to others (Bradley, 1978, Schlenker, 1980). As a result managers are inclined to believe that their foreign acquisitions succeed thanks to their superior management skills, but fail due to various external and unforeseeable circumstances. Such a perception is contributing to an overall feeling of success and at the same time making it difficult for managers to accept the negative feedback that they receive.

Finally, as the feeling of success reduces the need for information seeking (Miller & Chen, 1999), companies do not put effort into acquiring more information about how to choose and integrate foreign partners and how to acquire abroad.

Thus, in sum, inexperienced managers start the international expansion by acquisitions confidently and consequently limit the set of lessons from their prior acquisitions by being open to information about success only and blocking the information on failure of their acquisitions. All together it makes them convinced that they are able to manage an even more rapid international expansion through acquisitions i.e. they can successfully make more acquisitions within any given period of time.

However, buying many foreign companies per year may cause a lot of troubles (Vermeulen & Barkema, 2002). Since managers get more and more confident and do not pay attention to the problems they probably learn only a little about how to make foreign acquisitions, yet not enough to really understand all the complexities and challenges of this process. Additionally the increasing pace of entering foreign countries by acquiring a company in that market – due to increasing overconfidence - makes it more likely that managers will devote sub optimal time and attention to carefully screen, select and implement their acquisitions (Birkinshaw, 1997). Hence, when initiating more and more new foreign acquisitions within a given period of time, it is less likely that the firm will realize the full profit potential of these new expansions (Vermeulen & Barkema, 2002). All together the higher number of subsidiaries established in a short period of time will threaten the chances of their success. As a consequence more foreign acquisitions will get into trouble and their performance will decrease.

Many difficulties and failures, however, challenge current practices and procedures by drawing attention to previously overlooked problems and inconsistencies (Sitkin, 1996) and

by producing overwhelming evidence that cannot be ignored. Thus, it becomes increasingly difficult for managers to attribute the bad outcomes to the unpredictable external circumstances. This, in turn, results in a feeling of a need for corrective action (Cameron, 1984, Cyert & March, 1963, Sitkin, 1996). It suggests that many problems with acquisitions could motivate the companies to slow down the pace of acquiring abroad to analyze their experiences so far and to draw the lessons that can be learned from it. Since the evidence becomes so undeniable firms might start to consider (and accept all the available feedback and not only the one suggesting the good performance of their acquisitions). Thus, thanks to receiving (and accepting) more balanced information on their acquisitions (i.e. both about their successes and failures), companies can form a more realistic picture of their actual performance and draw new, more accurate conclusions about their abilities and skills to acquire abroad (for example about what they are best at and what their strengths are as well as what they still have to learn). Having more acquisitions to compare, acquirers are also able to interpret the new information more accurately, classify it more appropriately and make better use of it. This gives them more accurate routines and better skills, which leads to a better performance, and thus, longer survival of their acquisitions. As a result of having accurate routines firms can save on their cognitive efforts, perform some tasks routinely (like for example choosing the right targets, screening the potential targets, integrating the targets etc) and, thus, firms can speed up their international expansion by acquisitions again, this time however much more successfully.

In sum, we expect the number of acquisitions carried out by a firm to first increase, as its managers gain false confidence about their ability to make acquisitions. Next, we expect the pace of new acquisitions to drop, as firms realize that there is something wrong. This allows companies to reconsider and analyze what has gone badly as well as what has been the

strength. As a result of such an analysis firms learn and are able to pursue more acquisitions per year in a more conscious manner and more successfully.

Putting all the above arguments together we expect that:

Hypothesis 1a: The pace of making foreign acquisitions is first increasing, then decreasing and subsequently increasing again as a function of experience with foreign acquisitions.

Hypothesis 1b: There is a U shaped relationship between experience with foreign acquisitions and successfulness of foreign acquisitions.

Both acquisitions and greenfields are modes of foreign direct investment that require a physical presence in a foreign location. Experience with any of them could help firms to learn how to manage their subsidiaries abroad and how to integrate every new subsidiary into a network of their existing subsidiaries (Daily, Certo & Dalton, 2000), to gather information about dealing with new national cultures, host governments (law, local rules and customs), marketing techniques appropriate in a given country, functioning of the distribution channels, and tastes of local customers (Barkema & Vermeulen, 1998, Hennart & Park, 1993, Johanson & Vahlne, 1977). It suggests that some knowledge and routines that a firm develops when undertaking international greenfields could be used in making international acquisitions. Foreign greenfields, thus, could be a useful source of routines that could help companies to increase the efficiency of their process of entering foreign countries through acquisitions.

However, since managers are not good statisticians (Tversky & Kahneman, 1974), they base their judgments about similarity of greenfields and acquisitions on a small amount

of observations and thus, cannot notice all the differences between them. Further, due to self-serving bias (Langer, 1983) and illusion of control (Bradley, 1978, Schlenkler, 1980), they become overconfident and, thus, prone to believe that they have mastered the skill of internationalizing and setting up companies abroad by learning from their experiences with greenfields. It implies that when making international acquisitions while having some experience with greenfields, firms are inclined to focus on those aspects of their repertoire that appeared to be most successful in the situation when they were making a greenfield investment (c.f. Miller, Lant, Milliken & Korn, 1996). Consequently, companies may replicate the “tricks” and routines that seemed to work when establishing a greenfield investment and use them when making an acquisition. In sum, the confidence of being skilled in operating abroad gained from their prior greenfield expansions and misattribution of the experience with setting up greenfields abroad to the acquisition expansions encourages internationalizing firms to make acquisitions more frequently.

Despite certain similarities between the two expansion modes, greenfields differ substantially from acquisitions, however. Foreign greenfields involve building an entirely new organization in a foreign country. They are usually managed and staffed with at least a number of key people who have worked within the organization for some time and thus know its culture, routines and habits (Barkema & Vermeulen, 1998, Hennart & Park, 1993, Hofstede, 1980). In other words, in case of greenfields companies are not exposed to the problems of post-acquisition integration, which is, however, the case when they acquire a company. Consequently, greenfield investments spare companies the troubles of overcoming routines and habits of the acquired company, changing its mindsets and teaching it the new way of operating etc. (c.f. Bettis & Prahalad, 1995). In contrast, in case of an acquisition, the expanding firm buys (part of) the equity of an existing firm in a foreign country. In this way, the acquiring firm is also taking over (part of) the local personnel that knows how to operate

in a local economy and possesses information valuable to the company, yet at the same time carries with it the target's idiosyncratic set of routines (Nelson & Winter, 1982). Integration of target companies with the bidding company often leads to clashes and tensions, owing to the confrontation of different cultures, structures and systems (Chatterjee et al., 1992, Datta & Grant, 1990, Jones & Hill, 1988). Thus, a main difference between greenfields and acquisitions is that a firm making a greenfield investment is able to mold the affiliate by choosing its location and hiring its labor force, while a firm making an acquisition inherits the acquired firm's labor force and company culture (Hennart & Park, 1993). Thus, dealing with international acquisitions in the same way as with international greenfields is a recipe for trouble. By applying some or all routines developed in making a greenfield investment to making an acquisition, for example, the acquirer may try either to change the acquired companies in ways that do not fit their contingencies and administrative heritages or to consolidate them too extensively (Datta & Grant, 1990, Pablo, 1994). Consequently, the inappropriate management of acquisitions could lead, at least initially, to an increased number of failed investments.

Prolonged bad performance, however, is likely to help companies to realize their mistakes (Sitkin, 1996). Finding themselves in troubles, firms can be expected to decrease the number of undertaken acquisitions (as argued above). The slower pace allows them to analyze their experiences with both greenfields and acquisitions, understand how to make them better and how to distinguish between them. As firms gain acquisition experience and develop an expertise in determining underlying dissimilarities between acquisitions and greenfields (i.e. the organization develops from novice to expert), the tendency to generalize inappropriately would be likely to diminish, while the tendency to generalize appropriately should increase, leading to greater success (Haleblian & Finkelstein, 1999). Thus, experienced companies are

able to speed up their pace of acquisitions again and be more successful with them at the same time.

Thus we hypothesize:

Hypothesis 2a: The pace of making foreign acquisitions is first increasing, then decreasing and subsequently increasing again as a function of experience with foreign greenfields.

Hypothesis 2b: There is a U shaped relationship between experience with foreign greenfields and the successfulness of foreign acquisitions.

3.4. Methodology

3.4.1. Data

We tested the above hypotheses on a sample of non-financial firms listed on the Amsterdam Stock Exchange in 1993. The firms on this stock exchange are divided into two segments – “main funds” (large firms that are frequently traded) and less traded funds (smaller firms that are infrequently traded). The first segment contains about 35 firms, the second 230 firms. We selected our firms from the main funds segment. In the process of screening the companies we observed that the four largest Dutch companies (Royal Dutch Shell, Unilever, Philips and Akzo Nobel) form a distinct group in terms of their breadth of activities, scope and size. These firms are incorporated in the Netherlands, but an overwhelming proportion of their investments and business operations took place outside the Netherlands. These firms also differed significantly from the other firms in the population in terms of the breadth of their

activities, their size, and so on. For example, Royal Dutch represented almost 50% of the capitalization of the Amsterdam Stock Exchange. Hence, we decided to exclude them from our sample. In this way we obtained our longitudinal database of 25 firms over 32 years.

The database contained all foreign expansions (acquisitions, joint ventures and greenfields) included in the annual reports of the firms between 1966 and 1998. This window was chosen because the FDIs of these firms began to increase around the mid-1960s or later, starting from relatively low levels of international posture. The companies in our sample were relatively large companies (the average number of employees was 11,394 and their average sales amounted to NLG 3,109 billion) that operated in a wide variety of countries and industries (including manufacturing office equipment, precision machinery, paper and packaging, food products, brewing, publishing, retailing, trading etc). Altogether in the 32-year period, the 25 companies made 1087 foreign acquisitions (228 of them failed) and 284 greenfield investments abroad. On average each company made 1.59 foreign acquisitions per year, with a standard deviation of 2.42 acquisitions per year and 0.36 international greenfields per year (with standard deviation of 0.78). This resulted in the average experience with international acquisitions and greenfields coming close to, respectively, 14 (with the standard deviation of 17.81) and 6 (with standard deviation of 7.15) over the study period.

3.4.2. Variables

Dependent Variables

Number of acquisitions in a particular year. To measure the speed of internationalization by acquisitions we constructed a variable that counts the number of acquisitions made by each company in any given year. This measure reflects the number of deals that a company is making in a given year and the higher the number of deals the higher the speed of internationalization by means of acquisition. An acquisition was defined as a takeover of an

existing company or any of its business units (Barkema & Vermeulen, 1998, Vermeulen & Barkema, 2001).

Longevity of foreign acquisitions. Acquisition success was defined in terms of whether an acquisition was divested (“unsuccessful”) or retained (“successful”), as a few successful acquisitions are divested and few unsuccessful acquisitions are retained (Bergh, 1997, Hamilton & Chow, 1993, Porter, 1987, Ravenscraft & Scherer, 1987). Based on this information we constructed our second dependent variable - *longevity of foreign acquisitions* that was defined as the number of years a foreign acquisition persisted.

The survival/divestiture representation of acquisition outcome has often been criticized (Cannella & Hambrick, 1993). However, the usually preferred financial measures of an acquired company (e.g. Cannella & Hambrick, 1993, Very et al, 1997) are not available in our case, because multinational companies do not usually report the performance of the acquired company per se. Consequently, the aggregated performance of the acquiring company does not reflect the success of the acquisition as this measure could also include the contributions of other business lines and other subsidiaries/expansion modes.

Moreover, by measuring acquisition outcome in a broader manner than financial performance, we have the opportunity to capture non-financial criteria, which are also important antecedents to acquisition successes (see Bergh, 1995, Duhaime & Grant, 1984, Hamilton & Chow, 1993). Survival/retention of an acquisition has been shown to reflect acquisition success (Bergh, 2001, Boot, 1992, Kaplan & Weisbach, 1992), as there is a lot of evidence that most unsuccessful acquisitions are divested and successful ones are retained (Duhaime & Grant, 1984, Hamilton & Chow, 1993, Ravenscraft & Scherer, 1987). Lastly, survival and divestment of acquired companies are also outcomes valued highly by executives and shareholders (Alexander, Benson & Kampmeyer, 1984, Kaplan & Weisbach, 1992).

Independent variables

Experience with international acquisitions. This variable was measured as the number of prior foreign acquisitions since 1966 (the beginning of our window of analysis). Since first, second and third power of this variable appears in our models, we decided to apply an orthogonal transformation of those linear quadratic and cubic terms. It is a technique, which yields canonical functions that are independent of each other. In other words, the canonical functions are derived in such a way that when plotted in a multivariate space, they are orthogonal to each other, which ensures their statistical independence. Therefore, we avoid the potential multicollinearity problems. We also estimated models with those variables being mean centered and results (not shown) were virtually identical.

Experience with international greenfields. An expansion was called a greenfield if a subsidiary was newly formed by the focal company. We measured this variable as the number of prior foreign greenfields of the focal firm since 1966. Similarly as in the case of experience with acquisitions we used an orthogonal transformation to create the second and third order polynomials of this variable. The results for the mean centered variable (not shown here) were similar.

Control variables. A number of control variables were included in the analysis. First, we controlled for the experience with foreign joint ventures (measured as the number of prior foreign joint ventures of the focal firm since 1966), since companies may have used this knowledge and the capabilities derived from such experience when doing acquisitions. Joint ventures were defined as expansions that the focal company set up and owned jointly with another company. For the same reasons as in the case of experience with foreign acquisitions and greenfields, we used a variable lagged by two periods. Second, due to the fact that managers of highly profitable firms may use the firms' free cash flow for acquisitions of other

companies to increase their power, prestige, and salary, even if acquisitions do not enhance firm value (Jensen, 1986), we controlled for the firm's profitability, using the firm's return on assets or ROA (e.g. Hitt et al, 1997) at the beginning of each year. We also controlled for firm size, since in general larger firms have more resources for expansion. We controlled for it using the logarithm of the firm's number of employees at the beginning of each observation year. We also controlled for product diversity of the firm by including a variable that determines the total number of businesses a mother company is active in each year. Furthermore we wanted to assure that both curves are not a result of macroeconomic effects, rather than the hypothesized learning effects. Thus, we used a control variable: the growth of the Dutch market (measured as the growth of GNP one year before the acquisition was made), since growth of a home market may influence the number of acquisitions that companies are willing to make. Finally, to take into account the overall trends in the economy, fashions (when all the firms are acquiring rapidly), or the possibility that making acquisitions in 1998 was not as difficult and unusual as it was in 1966 we also included 5-year time dummies.

Please see Table 3.1 for summary statistics.

Table 3.1. Means, standard deviations and correlations

Variables	Means	S.D.	1	2	3	4	5	6	7
1. Number of foreign acquisitions per year	1.353	2.190							
2. Experience with foreign acquisitions	12.249	16.959	.616						
3. Experience with foreign greenfields	5.179	7.138	.294	.519					
4. ROA	0.054	.073	.186	.182	.084				
5. Firm size	8.934	.907	.180	.332	.161	-.017			
6. GNP growth	0.054	.125	-.055	-.100	-.070	.043	-.047		
7. Product diversity	16.015	10.329	.023	.120	.116	-.152	.342	.003	
8. Experience with foreign joint ventures	3.297	3.771	.217	.504	.565	.055	.282	-.096	.206
Correlation is significant at the 0.01 level (2-tailed). <i>Correlation is significant at the 0.05 level (2-tailed)</i>									

3.4.3. Analysis

Negative Binomial Regression

The Number of acquisitions in a particular year is a count variable with non-negative integer values only, many of which are equal to zero. The linear regression model assumptions of homoscedastic, normally distributed error terms, are thus violated. In such situations Poisson regressions are often used to analyze count data (e.g. Blundell, Griffith & Reenen, 1995, Hausman, Hall & Griliches, 1984). A Poisson process, however, assumes that the event of interest occurs at some rate over the observation period. Such models are fairly restrictive and require the mean and variance to be equal. However, if observations within a year are not independent, the variance may be greater than the mean. Negative binomial regression generalizes the Poisson model by allowing the rate of underlying processes to vary across observations according to a gamma distribution and thus we use this approach to test our hypotheses.

In this paper we used firm fixed effects controls. Firm effects control for the unobserved heterogeneity (stemming from different managerial skills, management know-how or organizational culture and other factors that are not explicitly taken into account by the model). In other words, the firm fixed effect takes into account factors that differ across firms, but that are relatively stable over time within firms. Following Cameron and Trivedi (1998), we estimated our models using a conditional likelihood approach.

To deal with the potential problem of simultaneity to test hypotheses 1a and 2a, we used a two period lag for experience with acquisitions. Since absorptive capacity refers not only to the assimilation of information but also to the ability to exploit it, companies need some time to understand the newly acquired experience to be able to put it to commercial use (Cohen and Levinthal, 1990). Hence, a two-year lag (i.e., a minimum of one year between the last acquisition experience and the new acquisition) seemed justified.

An alternative would be to follow Hausman, Hall and Griliches (1984) and use a quasi-difference approach to construct moments that are independent of the fixed effects. However, this approach was not adopted here since the choice of instruments is often a problem with such a GMM approach, as weak instruments may cause trouble when trying to solve a simultaneity bias problem (Hahn & Hausman, 2002).

Survival analysis

The hypotheses concerning the effect of previous experience with foreign acquisitions and greenfields on the successfulness of the acquired subsidiary abroad were tested using survival analysis, or event history approach (hypotheses 1b and 2b).

Parametric estimates of the hazard rate require assumptions about the effect of time (in our models, age) on failure. However, some of our explanatory variables i.e. operating experience, increase as the acquisition ages. Therefore, since the dependence of subsidiary mortality on age is unknown, we estimated proportional hazard model following Cox partial likelihood approach, as this semi-parametric model does not require assumptions about this effect. We choose the Cox model because of its flexibility. Unlike discrete time models, such as the log-normal or Weibull models, Cox model does not require identification of a specific, distinct hazard function. For each foreign acquisition, an event is registered upon failure. The dependent variable in this type of analysis is the instantaneous rate of subsidiary dissolution, which is based on the information on whether or not an affiliate is still in existence and how long it has persisted.

The positive parameter estimates for a given variable means that larger values of this variable increase the probability of acquisition failure. We allow the explanatory variables to be time-varying, which results in multiple observations for each of the analyzed subsidiaries. We account for possible dependence between different observations corresponding to the

same subsidiary. We allow for clustering, which assumes the observations to be independent across subsidiaries, but that does not require different observations on the same subsidiary to be independent. Finally, we also estimated a robust coefficients covariance matrix. To control for the possible firm specific effects that are relatively stable over time and vary across firms and may have an influence on the way a given organization manages its subsidiaries we included firm dummies in our Cox regressions².

3.5. Results

Tables 3.2. and 3.3 provide the statistical results of the hypotheses tests. . Models in table 2.3. (the Cox regression) are represented in the hazard rate formulation, which in the case of survival analysis, is the reverse of longevity. Models 1 and 3 present the estimates of negative binomial regression and survival analysis, respectively, with control variables only. In model 1 experience with joint ventures is related to the number of acquisitions per year at the $p < 0.001$ level, GNP growth at $p < 0.01$ level and finally firm size and product diversification of mother company are significantly related to the dependent variable at $p < 0.05$ level. The results of survival analysis with control variables only (model 3) indicate that ROA and product diversification of a mother company have a significant relationship to the acquisition outcome (at $p < 0.1$ level).

² Firm dummies here are defined at the parent company level (not at the subsidiary level).

Table 3.2. Results of negative binomial regression models

	Model 1		Model 2	
Test of hypotheses				
Experience with acquisitions ^e			0.328**	(0.114)
Experience with acquisitions ^2 ^e			-0.181**	(0.069)
Experience with acquisitions^3 ^e			0.058†	(0.041)
Experience with greenfields ^e			0.295*	(0.133)
Experience with greenfields^2 ^e			-0.196***	(0.059)
Experience with greenfields^3 ^e			0.098*	(0.047)
<i>Control variables</i>				
Experience with jv	0.062***	0.0183	-0.008	(0.025)
ROA	0.528	0.486	0.106	(0.513)
Firm size	0.339*	0.144	0.052	(0.145)
Product diversity	-0.020*	0.009	-0.009	(0.010)
GNP growth	-1.232**	0.427	-0.794*	(0.414)
Constant				
Log-likelihood	-884.768		-870.675	
Wald test χ^2	133.22		165.12	
P-value χ^2	0.0000		0.000	
No. of observations	649		649	

† p<0.10, * p<0.05, ** p<0.01, ***p<0.001

standard errors in parentheses

^e variable is a polynom

time dummies not shown

Model 2 shows the results for the full negative binomial regression model. Hypothesis 1a predicts that the number of foreign acquisitions per year as a function of the experience with foreign acquisitions would first increase, then decrease and finally increase again. Since we used the orthogonal polynom of the experience with acquisition we can directly verify the significance of each coefficient in our models. As can be seen, in Model 2 all the coefficients for prior experience with acquisitions are significant (first and second power at p<0.01 level

and third power at $p < 0.1$ level). However, the magnitude of the effects in the negative binomial regression models cannot be interpreted directly, since it is a multiplicative rather than an additive model. Jointly the results indicate that the speed of acquisitions is increasing until it reaches the maximum for experience with 67 acquisitions. Next, the number of acquisitions is decreasing, until it reaches the minimum value for the 107 acquisitions of experience. Afterwards the pace is increasing again. The plotted results for this hypothesis are presented in Figure 3.1. Thus, our hypothesis regarding the shape of the relationships between the experience with acquisitions and the number of acquisitions per year is also statistically supported..

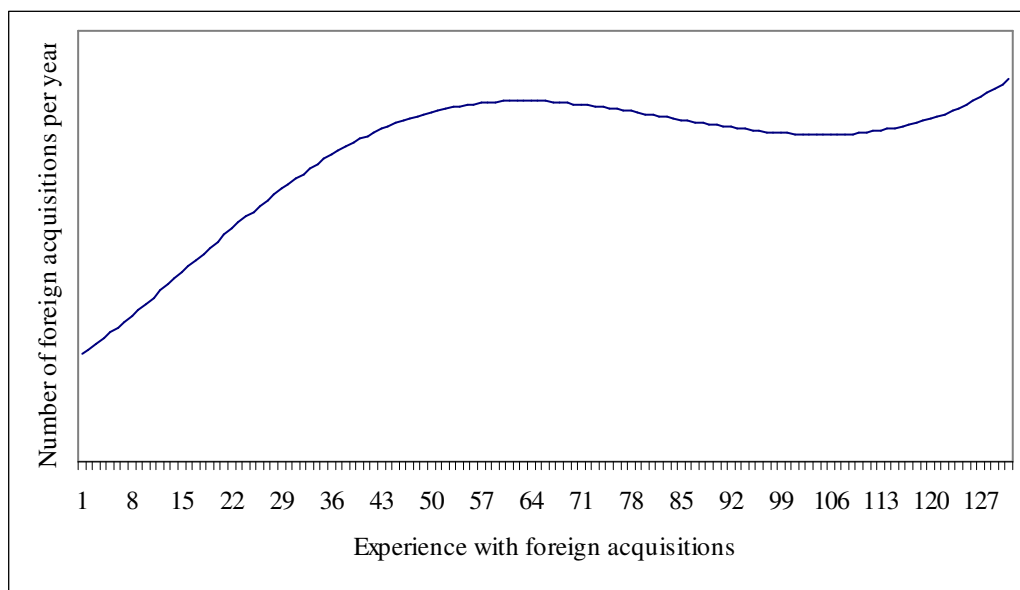


Figure 3.1. Relationship between experience with foreign acquisitions and number of foreign acquisitions per year.

Hypothesis 2a states that firm's experience with foreign greenfields causes it to increase the number of their foreign acquisitions per year at first. Subsequently, this number decreases and finally increases again for high levels of experience with greenfields abroad. As reflected in table 3.2. the coefficients of linear and cube effects of experience with startups are positive and significant (both at 0.05 level), while the coefficient of the squared effects of

experience with greenfields is negative and significant (at level 0.01). These results indicate that the number of acquisitions abroad as a function of previous experience with international greenfield investments first increases until it reaches the maximum is reached at the experience with 15 greenfields. Next the number of acquisitions per year drops until the minimum for experience with 38 greenfields and finally it starts increasing again (see Figure 3.3.). This is in line with the predicted shape of the curve and thus supports our hypothesis 2a.

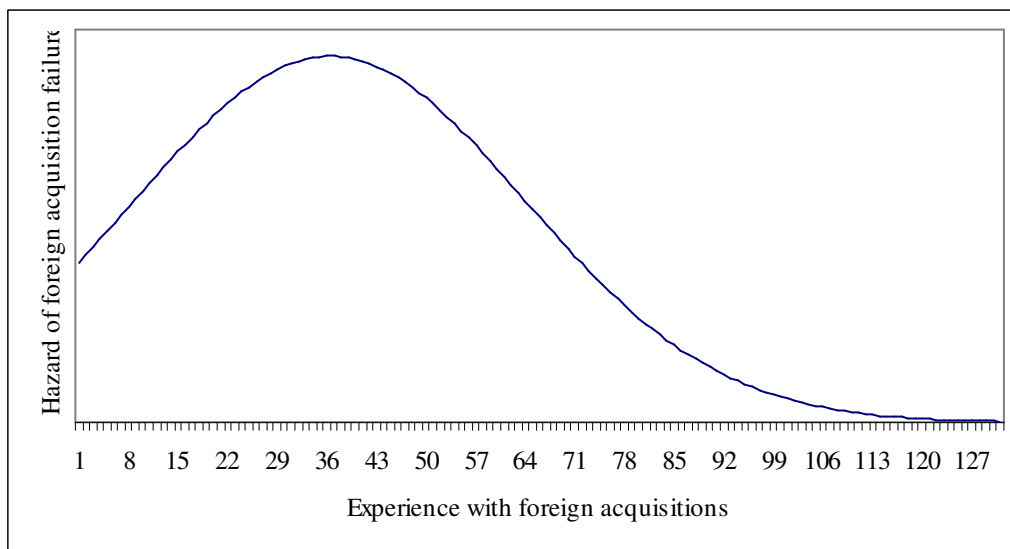


Figure 3.3. Relationship between experience with foreign acquisitions and hazard of foreign acquisition failure.

Results of the survival analysis are presented in model 4.

Table 3.3. Results of Cox regressions models

	Model 3		Model 4	
<i>Test of hypotheses</i>				
Experience with acquisitions ^e			-0.806**	(0.293)
Experience with acquisitions ^2 ^e			-0.746***	(0.176)
Experience with greenfields ^e			0.665*	(0.286)
Experience with greenfields^2 ^e			-0.224†	(0.158)
<i>Control Variables</i>				
Experience with jv	-0.013	(0.023)	-0.042	(0.039)
ROA	-1.66†	(1.078)	-3.160*	(1.397)
Firm size	-0.141	(0.1721)	-0.425†	(0.286)
Product diversity	0.016†	(0.009)	0.054***	(0.013)
GNP growth	0.013	(0.694)	0.091	(0.710)
Log-likelihood	-1168.762		-1141.549	
Wald test χ^2	74.01		157.96	
P-value χ^2	0.0000		0.0000	
No. of observations	7717		7717	

† p<0.10, * p<0.05, ** p<0.01, ***p<0.001

standard errors in parentheses

^e variable is a polynom

firm dummies not shown

In hypothesis 1b we expect a curvilinear (U shaped) relationship between a firm's experience with foreign acquisitions and the successfulness of foreign acquisitions. In the case of an event history model, the size of the effect implied by the coefficients cannot be interpreted directly, since it also is a multiplicative rather than an additive model (just like models 3). The coefficient corresponding to the linear effect of the experience with international acquisitions is negative and significant ($p < 0.01$) and the coefficient for the squared effect of experience with foreign acquisitions is negative and significant ($p < 0.0001$). Jointly these results indicate that inexperienced acquirers rushing with their acquisition process abroad indeed cause the hazard of subsidiary dissolution to be high for low values of experience variable. The hazard of failure first increases until it reaches the maximum for the value of 36 of experience with acquisitions. Subsequently, the hazard decreases with higher levels of experience in acquiring foreign targets. This supports hypothesis 1b. See Figure 3.2.

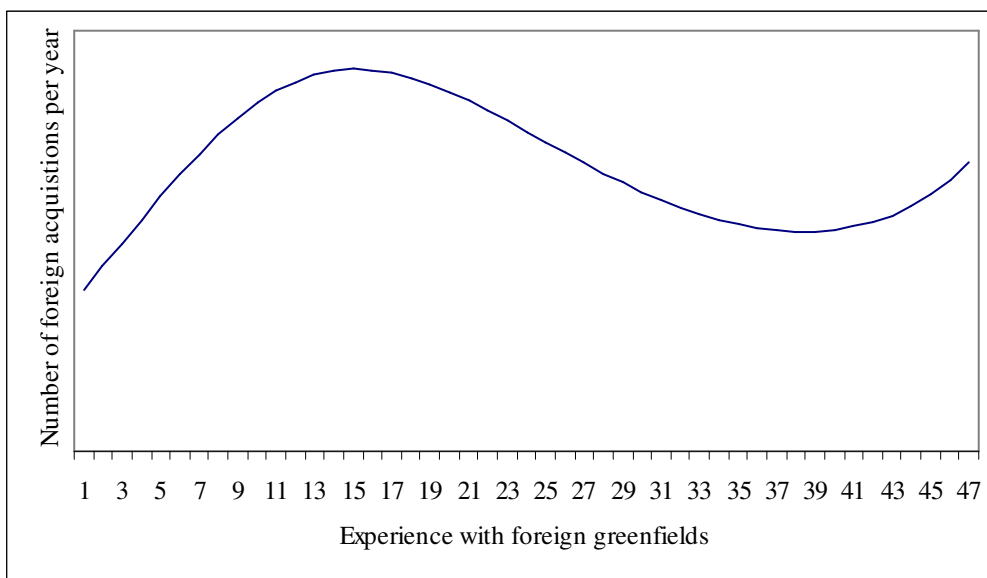


Figure 3.2. Relationship between experience with foreign greenfields and number of foreign acquisitions per year.

Finally, in hypothesis 2b we presumed a U shaped relationship between experience with foreign greenfields and the successfulness of the acquired subsidiary abroad. As

expected, the coefficient for the linear effect of experience with foreign greenfields is positive and significant ($p < 0.05$) and the coefficient for the squared effect of experience with start-ups is negative and significant ($p < 0.1$). See Figure

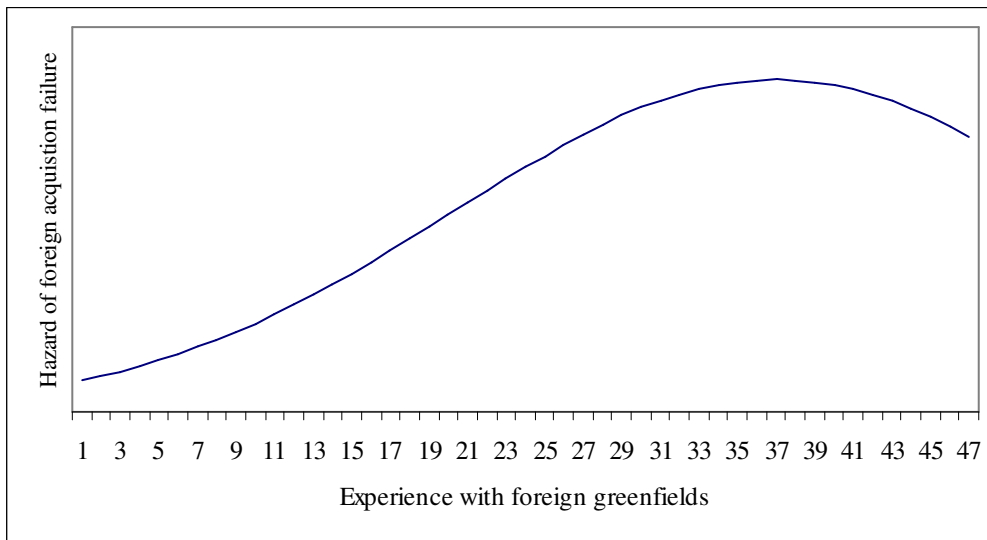


Figure 3.4. Relationship between experience with foreign greenfields and hazard of foreign acquisition failure.

3.6. Discussion

Prior research has shown that many corporate acquisitions fail (Datta, Pinches & Narayanan, 1992, Jensen, 1988, Markides & Oyon, 1998, Porter, 1987, Ravenscraft & Scherer, 1987) since acquiring firms encounter numerous challenges (Chatterjee, Lubatkin, 1983, Haspelagh & Jemison, 1991, Jemison & Sitkin, 1986, Lubatkin, Schweiger & Weber, 1992). Those problems become especially severe if firms engage in the international acquisitions - where the foreign, and thus unknown, aspects of different organizational and national cultures increase the difficulty of the post acquisition integration. Previous research has proposed several potential explanations for why (despite this discouraging evidence) managers are so

keen on making acquisitions – among others managerialism (Amihud & Lev, 1981, Baumol, 1967) and hubris (Hayward & Hambrick, 1997, Roll, 1986).

In this paper we argue that due to overconfidence, self-serving bias (Langer, 1983), misattribution (Haleblian & Finkelstein, 1999) and illusion of control (Bradley, 1978, Schelinker, 1980) the organizational learning process is constrained. More specifically, we hypothesized that due to these four reasons at low levels of experience firms make their acquisitions at a very high frequency (make a lot of acquisitions per year). This, however, negatively influences the successfulness of their foreign acquisitions. The deficient performance experiences (after a period dominated by unjustified euphoria) make companies realize their mistakes, carefully consider and examine all the past experiences, and learn from them. We claim that only then firms are able to speed up their international growth through acquisitions, this time, however, more successfully.

We also developed and tested finer-grained implications of our theory. We looked at how the same mechanisms play out when firms attempt to apply their experience gained when establishing greenfield investments abroad to making acquisitions abroad. In particular, we expected that, at low levels of experience, firms would erroneously draw inferences from their experience with international greenfields when engaging in international acquisitions, greatly misattributing their experiences due to overconfidence. Thus, we expected the same mechanism and relationship between experience with greenfields and speed of acquisition making and acquisition survival as in the case of learning from experience with acquisitions. Also those implications of our theory were strongly corroborated.

Our findings add to the discussion on the effect that experience with acquisitions has on acquisition performance. Previous research notes that experience with acquisitions appears to be the principal mechanism by which firms obtain skills to become successful acquirers (Fowler & Schmidt, 1989, Hayward, 2002, Hitt et al., 1998, Vermeulen & Barkema, 2001).

At the same time other research claims that experience with acquisitions does not help to build organization's acquisition skills (Burton, Oviatt & White, 1994, Lahaey & Conn, 1990, Zollo & Singh, 2002). Finally, Halebian & Finkelstein (1999) suggest that the relation between acquisitions' experience and performance might be different for different levels of experience. Similarly to Halebian & Finkelstein (1999), in this paper we find a U shaped relationship between the prior foreign acquisitions experience and their performance. By focusing on both the process of international expansion by acquisitions and managerial biases that motivate them to acquire abroad we are able to explain why the performance initially decreases and link it directly to the behavior of the acquiring firm in terms of how many acquisitions it is willing to make per year.

Our study is marked by a number of limitations. First, we treat experience with acquisitions as being homogenous. In other words we do not take into account the fact that there are many different kinds of acquisitions – i.e. horizontal, related, unrelated and vertical. The question of whether the experience with any of those acquisitions is less likely to make companies overconfident and change the degree of misattribution is a fruitful area for future research.

Second, in terms of data, companies in our sample do not form a random sample. They are all firms that survived for a sustained period of time (33 years), therefore a certain survivor bias is likely to be present. Moreover, the firms in our sample were based in a single country, the Netherlands. The Netherlands has a small home market and has been intensively engaged in international trade for more than 400 years. Furthermore, organizational learning and speed of foreign expansion might be influenced by the culture in which a firm is rooted (Hofstede, 1980). Further studies may provide more insight into whether the results from this study also apply in other national settings.

Another limitation of the study is the lack of data on managerial perceptions. Hence, we were not able to observe what exactly causes managerial biases and what helps them to overcome their hubris at the later stages of the company development.

Finally, the pace of making acquisitions may vary with certain organizational characteristics. For instance it may depend on the characteristics of the top management team (e.g. Schoonhoven et al, 1990), or the current structure of the firm (Barkema & Vermeulen, 1998). Future research uncovering how these and other factors moderate the impact of speed of making foreign acquisitions on their success would be a great complement to the current study.

Chapter 4

Learning to acquire within the core industry abroad

4.1. Abstract

In an attempt to out why how firms learn to be successful in acquiring in their core industry we focused our attention on two types of experiences that companies could benefit from (i.e. prior experience with international horizontal and related acquisitions). We argued that international horizontal acquisitions confront the international acquirers with one dimension of complexity that they need to deal with – i.e. the new foreign markets and cultures and positively influence successfulness and rate of acquiring in the core business. International related acquisitions, in turn, involve dealing with at least two levels of complexity – i.e. new business and new foreign cultures, which makes it more challenging to learn from. We find, however, that firms experienced in acquiring abroad in their core business are able to benefit from their experience with related acquisitions more easily.

4.2. Introduction

Global restructuring of many industries in response to technological change, liberalization and intensification of (international) competitiveness has pushed firms to increasingly focus on their core business when acquiring internationally (Anand, Capron & Mitchell, 2004). As a result of those trends international mergers and acquisitions between competing firms within the same industry have grown rapidly. For example, in 1999 70% of the value of cross border mergers and acquisitions were horizontal and the number of this type of deals per year has been increasing steadily (UNCTAD, 2000). Related and horizontal acquisitions are hypothesized to be more beneficial than unrelated ones because of the greater number of strategic fits possible and theory from more than three decades of research can generally be distilled into a guiding paradigm that recommends making horizontal and related acquisitions over their unrelated alternatives. While unrelated acquisitions may lead to synergies in such areas as finance and management, related and horizontal acquisitions can have high potential for building on and sharing existing resources and knowledge as well as certain economies in marketing and production (Donaldson, 1990, Flanagan, 1996, Flangan & O'Shaughnessy, 2003, Haleblan & Finkelstein, 1999, Kaplan & Weisbach, 1992, Lubatkin, 1983, Maquieira et al., 1998; Morck et al., 1990, Pangarkar & Lie, 2004; Pennings, Barkema & Douma, 1994, Matsusaka, 1993; see also Datta, Pinches & Narayanan, 1992, King, Dalton, Daily & Covin, 2004, for reviews). However, even though acquisitions in the core and related industries have the highest chances of being successful, making them abroad confronts the acquirers with additional challenges (like integration of the foreign targets, dealing with foreign cultures and new businesses abroad, transferring knowledge and learning from complex and often unknown geographical and business environments) that they might have to learn to deal with in order to be successful internationally. The question is how do firms learn

to be successful with their horizontal acquisitions and what types of experiences prove to be useful for them?

It is widely accepted that prior experience with acquisitions provides the valuable source of lessons that companies could draw from to develop routines for making acquisitions successfully and efficiently (Burton, Oviatt & White, 1994, Fowler & Schmidt, 1989, Hayward, 2002, Hitt et al., 1998, Lahaey & Conn, 1990, Vermeulen & Barkema, 2001, Zollo & Singh, 2002). One of the problems that companies face when learning from the previous acquisition experience, however, is the high danger of misattributing it (Haleblian & Finkelstein, 1999). Thus, previous research has concentrated its efforts on finding out what kind of experiences could be both valuable and with the lowest chances of being misattributed; those efforts have led to inconsistent results. On the one hand it has been found that the closer the focal acquisition to the previous one, the better the performance of that acquisition will be (Haleblian & Finkelstein, 1999). This implies that firms learn best from their horizontal acquisitions, since the probability of misattribution of that experience is the lowest (Haleblian & Finkelstein, 1999). On the other hand, however, other research has found that acquisitions in businesses that are too similar (or too dissimilar) to each other prevent acquirers from establishing what is different, special and important about the focal opportunity (Hayward, 2002), suggesting that medium levels of similarity between acquisitions are the best for companies to learn. From this perspective experience with horizontal acquisitions could have a limited, or even negative effect on the acquisition performance while experience with related acquisitions could be the most optimal type of experience to learn from.

The abovementioned studies have been mostly concerned with identification of experience that might prove useful for internationalizing acquirers at any stage of the company's development. In this paper we build on an argument that firms can only learn one

thing at a time (Goodman, Wood & Hendrickx, 2004) and argue that as organizations evolve and learn they have different skills, capabilities but also needs for what they should still learn. Thus, the requirements for what international acquirers have to learn and what kind of experiences are most likely to provide the most valuable lessons change at different stages of company's a development or stage of internationalization.

In this paper, we analyze the effects of experience with foreign horizontal and related acquisitions at different levels of experience with horizontal acquisitions on the frequency and performance of horizontal acquisitions. In this way, by looking at which experience is applied to a particular type of international acquisitions, we are able to understand the way in which organizations learn. We argued that international horizontal acquisitions confront the international acquirers with one dimension of complexity that they need to deal with – i.e. the new foreign markets and cultures. International related acquisitions, in turn, involve dealing with at least two levels of complexity – i.e. new business and new foreign cultures, which makes it more challenging to learn from. We find, however, that firms experienced in acquiring abroad in their core business are able to benefit from their experience with related acquisitions more easily.

4.3. Background

Previous research notes that experience with acquisitions appears to be the principal mechanism by which firms obtain skills to become successful acquirers (Fowler & Schmidt, 1989, Hayward, 2002, Hitt et al., 1998, Vermeulen & Barkema, 2001). For example foreign acquisition experience helps firms to develop routines for screening and selecting acquisition targets abroad – like for example obtaining more pertinent information about them, setting up the financial criteria that they should meet and determining how big the target companies

should be (Reuer, Shenkar & Ragozzino, 2004). Moreover, as internationalizing companies gain experience with acquiring abroad they become more adept at implementing the necessary structural changes, avoiding and solving the administrative problems, determining the suitable levels of post acquisition integration as well as identifying the key success factors for a successful and effective integration of a foreign target (Hitt et al., 1998, Lubatkin, 1983, Vermeulen & Barkema, 2001). Finally, thanks to their prior experience international acquirers operating in diverse settings can develop skills and processes to transfer their knowledge and resources internationally across their units (from home headquarters to foreign subsidiaries, from foreign units to home locations, and across subsidiaries) (Gupta & Govindarajan, 2000, Hedlund, 1994). This requires the development of skills for decontextualizing and recontextualizing the knowledge that internationalizing acquirers want to transfer and integrate into the acquired firm's units. In other words, thanks to accumulating experience companies acquiring abroad become more skilled at making the firm's resources less context specific and more suitable to redeployment on an international scale (Brannen, Liker & Fruin, 1998, Doz & Santos, 1997). All those routines and skills, as Vermeulen and Barkema (2002) argue, help the company to increase the survival rate of their foreign subsidiaries.

Since prior acquisition experience is a complex source of acquisition routines (Zollo & Reuer, 2002), previous research has been busy identifying the characteristics of the prior experience that could ensure the most successful learning process and acquisition routines development. On the one hand, for example, a close resemblance of the companies' acquisitions to each other is crucial in order to overcome the danger of failing to judge when it is appropriate to generalize from the previous experience to the focal acquisition and when it is better not to apply that experience (i.e. distinguish between previous acquisitions and the focal one) (Haleblian & Finkelstein, 1999). Consequently, due to the different effect of generalization behavior (i.e. positive for similar acquisitions but negative for dissimilar

acquisitions), acquisitions that are similar to the previous acquisitions should outperform acquisitions that are dissimilar to previous acquisitions (Haleblian & Finkelstein, 1999). This might suggest that the more similar the acquisitions are to each other, the better the acquirer learns. However, at the same time other research suggested that acquisitions of businesses that are too similar or dissimilar to each other prevent acquirers from establishing exactly what is different, special and important about a focal acquisition (Hayward, 2002). For example when prior acquisitions are highly similar to one another, they form a homogenous experience where acquirers are likely to be proficient at exploiting their current set of competencies but lack the generalist skills to appreciate a range of acquiring opportunities, and thus often fell into the trap of inertia (Levitt & March, 1988) or myopia (Levinthal & March, 1993). In turn, when prior acquisitions are highly dissimilar acquirers lack the specialist skills to extract gains from any type of acquisition (Hayward, 2002) – i.e. they have developed the ability to explore their environment but not to actually exploit the newly gained knowledge and use it. From this perspective, medium levels of similarity are the most useful for companies to learn from and provide sufficient variety that prevents acquirers from becoming inert and at the same time helps exploiting and improving the efficiency.

In what follows we argue that in order for us to understand the relationship between prior acquisition experience and performance it is important to simultaneously analyze what kind of experiences firms learn from and what they apply it to. We take a closer look at experience with international horizontal and related acquisitions to determine how different experiences influence the performance and expansion rate of horizontal acquisitions.

4.4. Theory and hypotheses

Horizontal international acquisitions allow firms to learn the international aspects of buying companies abroad. Making foreign horizontal acquisitions abroad increases the complexity of operations in just one clearly defined dimension (i.e. new foreign market) that is relatively easy to observe for internationalizing companies. Changing one aspect of complexity at a time while holding other ones constant provides unconfounded information about the impact of this new, changed dimension, which facilitates the accumulation of information about the impact of specific actions (Goodman, Wood & Hendrickx, 2004). This helps internationalizing acquirers to attach meaning to actions and link specific actions/causes to outcomes, which consequently helps them to learn how to acquire abroad.

For example, when internationalizing acquirers gain experience, it is easier for them to spot and evaluate the potential foreign acquisition targets, establish what the performance and success requirements are in that industry and market, and tap better into the needs of the customers and suppliers abroad (Barkema et al,1996, Johanson & Vahlne, 1977). Experience in acquiring in the core business helps companies increase their market power, and benefit from efficiency gains, reap opportunities for achieving cost savings through exploitation of scale and scope economies and increase a firm's market coverage through the geographic extension of the market (Lubatkin,1983, Singh & Montgomery, 1987). Moreover, having the experience with acquiring in different countries equips the firm with a greater capability to scan the environment, screen new technologies and ideas, gain access to local resources and leverage institutional contacts (Kostova & Zaheer, 1999). Finally, when international companies gain experience in acquiring in the core business abroad, they learn to integrate the foreign targets effectively, as they do not have to spend time to learn and understand the new business. Thanks to those characteristics of experience with horizontal acquisitions,

companies are able to develop a set of standardized and specialized routines for making them (Szulanski, 1999). Moreover, since foreign horizontal acquisitions are relatively similar to each other, there is little room for misattribution of experiences in case of transferring them from one horizontal acquisition to the other. Business familiarity, consequently, allows the acquiring firm's managers to effectively employ their "dominant logic" (Prahalad & Bettis, 1986), which means that with each foreign horizontal acquisition the firm can essentially replicate some aspects of its prior expansions.

In other words, prior experience with horizontal acquisitions not only allows for creating useful and efficient routines but it is also desirable that this experience is generalized. Generalization in this case allows for automatization of the focal tasks, which helps companies to apply the correct routines to correct situations and in this way perform their tasks more efficiently – i.e. companies can successfully increase the frequency of international expansion by acquisitions. Greater experience with foreign horizontal acquisitions and specific routines developed based on that experience provides opportunities to refine and improve the routines for making horizontal acquisitions abroad. All together those characteristics of foreign horizontal acquisitions make them more likely to be successful and learning and transfer of the previous experiences from them more feasible.

Hypothesis 1a: Experience with foreign horizontal acquisitions positively influences the number of horizontal acquisitions per year.

Hypothesis 1b: Experience with foreign horizontal acquisitions positively influences the successfulness of horizontal acquisitions.

Foreign related acquisitions concern firms that sell similar (but not the same) products and serve similar (but not the same) product markets (Blackburn, Lang & Johnson, 1990, Chatterjee, 1986). They potentially offer a number of benefits for international horizontal acquisitions, like the possibility of sharing intangible resources (such as reputation, advertising and promotion know-how), skills and outputs of R&D, experience in establishing and running business in a similar industry (for example familiarity with characteristics of customer or suppliers bases, prevailing trade practices, technical and regulatory aspects, competitive pressure, etc). Thus, in many ways the characteristics of related acquisitions might prove to be useful for horizontal acquisitions and offer a possibility to learn from them. Since related international acquisitions seem to be similar to horizontal acquisitions, companies may be inclined to immediately apply the routines developed when doing related acquisitions abroad to their subsequent horizontal acquisitions. Such routines, in turn, motivate them to speed up the process of entering foreign countries in their core business.

However, related foreign acquisitions confront international acquirers with at least two different kinds of problems and complexities at the same time (i.e. new geographical market and new industry). The correct use of prior experience requires the ability to distinguish between investment situations that are similar to earlier experienced ones along certain dimensions, and situations that are novel along at least one of those dimensions (Haleblian & Finkelstein, 1999). When more than one dimension is changed simultaneously, it is difficult for companies to determine which actions led to an effect or whether the positive and negative effects of different actions canceled each other out (c.f. Goodman, Wood & Hendrickx, 2004). In other words, complex experiences (such as with foreign related acquisitions) tend to produce biased interpretations of what has happened before and why (March & Olsen, 1988). In effect, such confounded information will not be useful for modifying or developing hypotheses about the relationships between actions and outcomes (Goodman, Wood &

Hendrickx, 2004). Thus, at least initially, the risk of misattribution of experience with international related acquisitions when making horizontal acquisitions is high for inexperienced international acquirers. This, at least initially, causes the successfulness of horizontal acquisitions to decrease (c.f. Halebian & Finkelstein, 1999).

However, firms that have done a number of related acquisitions abroad will learn to compare them with the horizontal acquisitions, and will eventually notice the differences and appropriately use the knowledge from related acquisitions to their horizontal acquisitions. For example, they will learn to distinguish between outcomes of their actions that should be attributed to the fact that they are operating abroad or in a different industry. Firms will also learn to decontextualize their knowledge from related industries abroad and apply it to new international settings in their core industry. By borrowing some solutions from related industries international acquirers can get more successful and more innovative, since incoming information will relate to what firm already knows (Cohen & Levinthal, 1990) and that new applicable combinations of knowledge will be made (cf. Kogut & Zander, 1992, Markides & Williamson, 1996). It implies that even though foreign related acquisitions initially confuse international acquirers and decrease performance of horizontal acquisitions, over time firms learn to benefit from their related acquisitions when making horizontal acquisitions, and gradually increase the performance of their horizontal acquisitions over time.

Hypothesis 2a: Experience with foreign related acquisitions positively influences the number of horizontal acquisitions per year.

Hypothesis 2b: There is a U shaped relationship between experience with foreign related acquisitions and the successfulness of foreign horizontal acquisitions

International related acquisitions are complex and initially difficult to understand for internationalizing acquirers (since it is hard to distinguish between what should be attributed to the new foreign market and what to a new industry). As it was argued above, experience with foreign related acquisitions is pushing firms to initially unjustifiably increase the frequency of acquiring in their core business abroad (consequently leading to the decreased successfulness of horizontal acquisitions). Yet, as we have argued, over time firms are able to gradually learn to benefit from international related acquisitions how to make international horizontal acquisitions.

The magnitude of these effects might be, however, different for companies with substantial experience with acquiring in their core business abroad as previous horizontal acquisition experience is likely to equip firms with the kind of knowledge that they need to be able to correctly apply or disregard their experiences with international related acquisitions (cf. Halebian & Finkelstien, 1999, Teece, 1982). When firms have experience with acquiring abroad in their core business, for example, they know how to deal with the foreign targets, how to integrate them, and how to benefit from the knowledge gained (as we have argued in the hypothesis 1). In this way internationalizing acquirers with a substantial experience in acquiring in the core business, who learn from their related acquisitions abroad, narrow the dimensions of complexity that they need to comprehend to just one source (new business). This awareness can help to avoid misinterpretation and misapplication of their past experiences with related acquisitions abroad (Halebian and Finkelstein, 1999).

Thus, thanks to having experience with horizontal acquisitions abroad international acquirers are better able to build routines based on their experience with related acquisitions

and apply them to their acquisitions in a core business. This, consequently, allows them to increase the frequency of expanding in the core business internationally. However, the experience with horizontal acquisitions moderates the effect that related acquisitions have on the frequency. Having prior experience in the core business companies are able to assess their capabilities and strengths better, as they will not make the mistake of misattribution of their prior experience with related acquisitions to such a degree as it was the case when the experience with horizontal acquisitions was lower. Thus, companies do not rush in at the too high speed initially (as it was the case when they did not have the experience with horizontal acquisitions).

Since the companies still have to learn how to use the knowledge from their new, yet related, industry the performance of the international horizontal acquisitions will be decreasing at the beginning. Yet, since companies do not rush so much and can benefit from their experience with related acquisitions abroad more easily, we expect that the drop of the performance for the companies who are experienced with acquiring abroad in their core business will be much shorter and much smaller. In other words, experience with foreign horizontal acquisitions helps international acquirers to benefit from their foreign related acquisitions quicker and facilitates the transfer of knowledge from one industry to another.

Hypothesis 3 a: The higher the level of experience with foreign horizontal acquisitions the influence of the experience with foreign related acquisitions on the number of horizontal acquisitions per year will be positive yet more balanced.

Hypothesis 3b: The higher the experience with foreign horizontal acquisitions the more positive the impact of experience with foreign related acquisitions on the successfulness of horizontal acquisitions.

4.5 Methodology

4.5.1. Data

We tested the above hypotheses on a sample of non-financial firms listed on the Amsterdam Stock Exchange in 1993. The firms on this stock exchange are divided into two segments – “main funds” (large firms that are frequently traded) and less traded funds (smaller firms that are infrequently traded). The first segment contains about 35 firms, the second 230 firms. We selected our firms from the main funds segment. In the process of screening the companies we observed that four largest Dutch companies (Royal Dutch Shell, Unilever, Philips and Akzo Nobel) form a distinct group in terms of their breadth of activities, scope and size. These firms are incorporated in the Netherlands, but an overwhelming proportion of their investments and business operations took place outside the Netherlands. These firms also differed significantly from the other firms in the population in terms of the breadth of their activities, their size, and so on. For example, Royal Dutch represented almost 50% of the capitalization of the Amsterdam Stock Exchange. Hence, we decided to exclude them from our sample. In this way we obtained our longitudinal database of 25 firms over 32 years.

The database contained all foreign expansions (acquisitions, joint ventures and greenfields) included in the annual reports of the firms between 1966 and 1998. This window was chosen because the FDIs of these firms began to increase around the mid-1960s or later, starting from relatively low levels of internationalization. The companies in our sample were relatively large companies (the average number of employees was 11,394 and their average sales amounted to NLG 3,109 billion) that operated in a wide variety of countries and industries (including manufacturing office equipment, precision machinery, paper and packaging, food products, brewing, publishing, retailing, trading etc). All together in the 32-year period, the 25 companies made 698 foreign horizontal acquisitions (114 of them failed).

On average each company made 0.89 horizontal acquisitions per year, with a standard deviation of 1.69 acquisitions per year. This resulted in the average experience with horizontal acquisitions and related acquisitions coming close to, respectively, 8 (with the standard deviation of 11.97) and 2 (with standard deviation of 3.79) over the study period.

4.5.2. Variables

Dependent variables

Number of foreign horizontal acquisitions in a particular year. To measure the frequency of internationalization by horizontal acquisitions we constructed a variable that counts the number of horizontal acquisitions made by each company in any given year. This measure reflects the number of deals that a company is making in a given year and the higher the number of deals the higher the frequency of internationalization by means of acquisition. A horizontal acquisition was defined as a takeover of an existing company or any of its business units within the core industry of the acquirer. We defined industries as unique 3-digit SBI codes (the Dutch equivalent of SIC codes).

Longevity of foreign horizontal acquisitions. Acquisition success was defined in terms of whether an acquisition was divested (“unsuccessful”) or retained (“successful”), as a few successful acquisitions are divested and few unsuccessful ones retained (Bergh, 1997, Hamilton & Chow, 1993, Porter, 1987, Ravenscraft & Scherer, 1987). Based on this information we constructed our second dependent variable - *longevity of foreign horizontal acquisitions* that was defined as the number of years a foreign acquisition persisted.

The survival/divestiture representation of acquisition outcome has often been criticized (Cannella & Hambrick, 1993). However, the usually preferred financial measures of an acquired company (e.g. Cannella & Hambrick, 1993, Very et al, 1997) are not available in our case, because multinational companies do not usually report the performance of the acquired

company per se. Consequently, the aggregated performance of the acquiring company does not reflect the success of the acquisition as this measure could also include the contributions of other business lines and other subsidiaries/expansion modes.

Moreover, by measuring acquisition outcome in a broader manner than financial performance, we have the opportunity to capture non-financial criteria, which are also important antecedents to acquisition successes (see Bergh, 1995, Duhaime & Grant, 1984, Hamilton & Chow, 1993). Survival/retention of an acquisition has been shown to reflect acquisition success (Boot, 1992, Kaplan & Weisbach, 1992, Bergh, 2001), as there is a lot of evidence that most unsuccessful acquisitions are divested and successful ones are retained (Duhaime & Grant, 1984, Hamilton & Chow, 1993, Ravenscraft & Scherer, 1987). Survival and divestment of acquired companies are also outcomes valued highly by executives and shareholders (Alexander, Benson & Kampmeyer, 1984, Kaplan & Weisbach, 1992).

Independent variables

Experience with international horizontal acquisitions. This variable was measured as the number of prior foreign horizontal acquisitions of the company since 1966 (the beginning of our window of analysis).

Experience with international related acquisitions. This variable was measured as the number of prior international related acquisitions since 1966. An international related acquisition was defined as a takeover of an existing company or any of its business units in the industry abroad related to the core activities of the acquirer (within the same 2 digit SBI-code category, but not in the same three-digit category) (Barkema & Vermeulen, 1998). This operationalization is in line with the “basic areas” notion of Penrose (1995, p.109), and the “dominant logic” concept of Prahalad and Bettis (1986).

Control variables. A number of control variables were included in the analysis. First, due to the fact that managers of highly profitable firms may use the firms’ free cash flow for

acquisitions of other companies to increase their power, prestige, and salary, even if acquisitions do not enhance firm value (Jensen, 1986), we controlled for the firm's profitability, using the firm's return on assets or ROA (e.g. Hitt et al, 1997). Second, we controlled for firm size (since in general larger firms have more resources for expansion). We controlled for it using the logarithm of the firm's number of employees. We also controlled for product diversity of the firm by including a variable that determines the total number of businesses a mother company is active in each year. Furthermore we wanted to assure that both curves are not a result of macroeconomic effects, rather than the hypothesized learning effects. Thus, we used a control variable: the growth of the Dutch market (measured as the growth of GNP one year before the acquisition was made), since growth of a home market may influence the number of acquisitions that companies are willing to make. We also wanted to control for the possibility that a change of the acquisition strategy would be a result of a change of the CEO. Thus, we included a variable that measures the number of years that a manager has been a CEO. Moreover, we controlled for the experience with foreign joint ventures and experience with prior foreign greenfields (measured as the number of prior foreign joint ventures of the focal firm since 1966 and number of foreign greenfields of a focal firm since 1966, respectively), since companies may have used this knowledge and the capabilities derived from such experiences when doing acquisitions. Joint ventures were defined as expansions that the focal company set up and owned jointly with another company, while we called an expansion a greenfield if a subsidiary was newly formed by the focal company (without partners). For the same reasons as in case of experience with acquisitions and startups we used a two period lagged variable. Finally, to take into account the overall trends in the economy, fashions (when all the firms are acquiring rapidly), or the possibility that making acquisitions in 1998 was not as difficult and unusual as it was in 1966 we also included 5-year time dummies. Please see Table 4.1 for summary statistics.

Table 4.1. Means, standard deviations and correlations

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1. Number of foreign horizontal acquisitions per year	0.897	1.687										
2. Experience with foreign horizontal acquisitions	7.847	11.97	.609									
3. Experience with foreign related acquisitions	1.683	3.788	.252	.390								
4. Experience with foreign joint ventures	3.297	3.771	.204	.448	.256							
5. Experience with foreign greenfields	5.179	7.138	.318	.533	.202	.565						
6. ROA	0.054	0.073	.183	.219	-.059	.055	.084					
7. Firm size	8.934	0.907	.157	.312	.162	.282	.161	-.017				
8. CEO tenure	10.13	6.456	-.013	.046	.004	.111	.157	-.005	.242			
9. CEO change dummy	0.113	0.316	.055	.056	.117	-.041	-.027	-.030	.047	.100		
10. GNP growth	0.054	0.125	-.072	-.095	-.068	-.096	-.070	.043	-.047	-.004	-.044	
11. Product diversity	16.01	10.32	.013	.252	-.007	.206	.116	-.152	.342	-.007	.022	.003

Correlation is significant at the 0.01 level (2-tailed).

Correlation is significant at the 0.05 level (2-tailed).

4.5.4. Analysis

Negative Binomial Regression

The Number of acquisitions in a particular year is a count variable with nonnegative integer values only, many of which are equal to zero. The linear regression model assumptions of homoscedastic, normally distributed error terms are thus violated. In such situations Poisson regressions are often used to analyze count data (e.g. Blundell, Griffith & Reenen, 1995, Hausman, Hall & Griliches, 1984). A Poisson process, however, assumes that the event of interest occurs at some rate over the observation period. Such models are fairly restrictive and require the mean and variance to be equal. However, if observations within a year are not independent, the variance may be greater than the mean (see Table 4.1). Negative binomial regression generalizes the Poisson model by allowing the rate of underlying processes to vary across observations according to a gamma distribution and thus we use this approach to test our hypotheses.

In this paper we used firm fixed effects controls. Firm effects control for the unobserved heterogeneity (stemming from different managerial skills, management know-how or organizational culture and other factors that are not explicitly taken into account by the model). In other words, the firm fixed effect takes into account factors that differ across firms, but that are relatively stable over time within firms. Following Cameron and Trivedi (1998), we estimated our models using a conditional likelihood approach.

To deal with the potential problem of simultaneity to test hypotheses 1a and 2a, we used a two period lag for experience with acquisitions. Since absorptive capacity refers not only to the assimilation of information but also to the ability to exploit it, companies need some time to understand the newly acquired experience to be able to put it to commercial use (Cohen and Levinthal, 1990). Hence, a two-year lag (i.e., a minimum of one year between the last acquisition experience and the new acquisition) seemed justified.

An alternative would be to follow Hausman, Hall and Griliches (1984) and use a quasi-difference approach to construct moments that are independent of the fixed effects. However, this approach was not adopted here since the choice of instruments is often a problem with such a GMM approach, as weak instruments may cause trouble when trying to solve a simultaneity bias problem (Hahn & Hausman, 2002).

Survival analysis

The hypotheses concerning the effect of previous experience with foreign horizontal and related acquisitions on the successfulness of international horizontal acquisitions (hypotheses 1b, 2b and 3b) were tested using survival analysis, or event history approach.

Parametric estimates of the hazard rate require assumptions about the effect of time (in our models, age) on failure. However, some of our explanatory variables i.e. operating experience, increase as the acquisition ages. Therefore, since the dependence of subsidiary mortality on age is unknown, we estimated proportional hazard model following Cox partial likelihood approach, as this semi-parametric model does not require assumptions about this effect. We choose the Cox model because of its flexibility. Unlike discrete time models, such as the log-normal or Weibull models, Cox model does not require identification of a specific, distinct hazard function. For each foreign acquisition, an event is registered upon failure. The dependent variable in this type of analysis is the instantaneous rate of subsidiary dissolution, which is based on the information on whether or not an affiliate is still in existence and how long it has persisted.

The positive parameter estimate for a given variable means that larger values of this variable increase the probability of acquisition failure. We allow the explanatory variables to be time-varying, which results in multiple observations for each of the analyzed subsidiaries. We account for possible dependence between different observations corresponding to the

same subsidiary. We allow for clustering to allow the observations to be independent across subsidiaries, which does not require different observations on the same subsidiary to be independent. Finally, we also estimated a robust coefficients covariance matrix. To control for the possible firm specific effects that are relatively stable over time and vary across firms and may have an influence on the way a given organization manages its subsidiaries we included firm dummies in our Cox regressions³.

4.6. Results

Tables 4.2. and 4.3. provide the statistical results of the hypotheses tests. Models in table 4.3. (the Cox regression) are represented in the hazard rate formulation, which in the case of survival analysis, is the reverse of longevity. Models 1 and 3 present the estimates of negative binomial regression and survival analysis, respectively, with control variables only.

³ Firm dummies here are defined at the parent company level (not at the subsidiary level).

Table 4.2. Negative binomial regression models

	Model 1		Model 2	
<i>Test of hypotheses</i>				
Experience with horizontal acquisitions			0.019**	(0.008)
Experience with related acquisitions			0.095**	(0.035)
Horiz*Rel			-0.002*	(0.001)
<i>Control variables</i>				
ROA	1.028 †	(0.559)	0.709	(0.582)
Firm size ^e	-0.039	(0.188)	-0.091	(0.189)
CEO change	0.099	(0.177)	0.129	(0.172)
CEO tenure	-0.011	(0.010)	-0.013	(0.010)
Experience with greenfields	0.0127	(0.015)	-0.003	(0.016)
Log likelihood	-678.78		-672.292	
Wald test χ^2	105.99		121.67	
P-value χ^2	0.0000		0.0000	
No. of observations	682		682	

† p<0.10, * p<0.05, ** p<0.01, ***p<0.001
 standard errors in parentheses
^e variable is a logarithm
 time dummies not shown

Model 2 shows the results for the full negative binomial regression model. Hypothesis 1a predicts that the number of foreign horizontal acquisitions per year will increase as a function of the experience with them. As can be seen, in Model 2 the coefficient for prior experience with international horizontal acquisitions is positive and significant at p<0.01 level. Thus, our hypothesis regarding the shape of the relationship between the experience with international horizontal acquisitions and the number of horizontal acquisitions per year is statistically supported.

Experience with international related acquisitions was also hypothesized to positively influence the number of foreign acquisitions per year (hypothesis 2a). As can be seen, in

Model 2 the coefficient for prior experience with foreign related acquisitions is positive and significant at $p < 0.01$ level. Thus, our hypothesis regarding the shape of the relationship between the experience with international related acquisitions and the number of foreign horizontal acquisitions per year is statistically supported.

Hypothesis 3a poses that the higher the level of experience with foreign horizontal acquisitions the experience with foreign related acquisitions increases the frequency with which acquire abroad in their core business, yet this influence is stabilized and more balanced. Thus we expected the signs of the interaction term between the experiences with foreign horizontal and related acquisition to be opposite to the main term –i.e. negative. Consistent with our theory, the estimate of the interactive term between experience with foreign horizontal acquisitions and experience with foreign related acquisitions is significantly negative ($p < 0.05$). The plotted results for this hypothesis are presented in Figure 4.1.

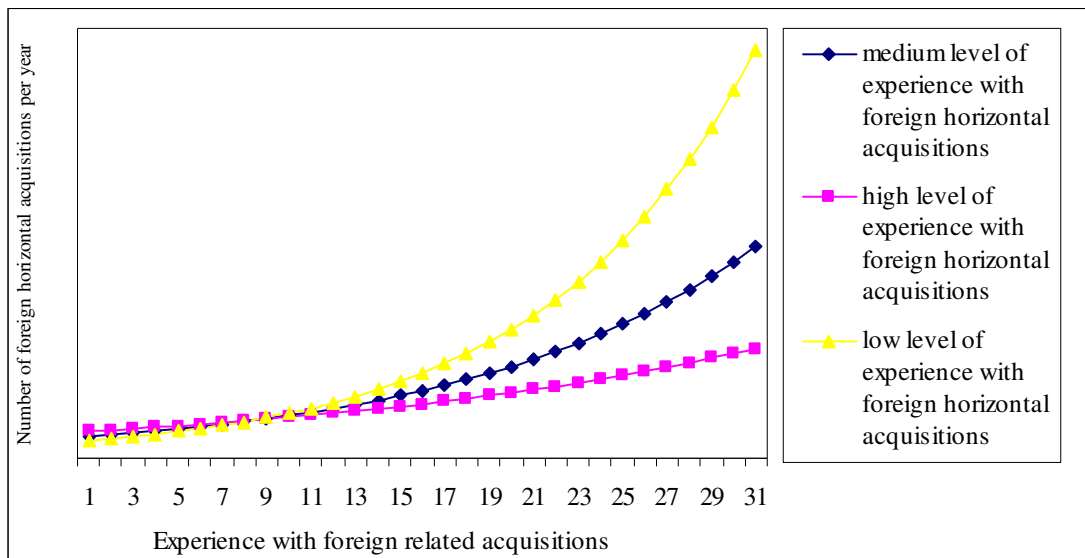


Figure 4.1. Relationship between experience with foreign related acquisitions and the number of foreign horizontal acquisitions per year for different levels of experience with foreign horizontal acquisitions

Results of the survival analysis are presented in model 4.

Table 4.3. Cox regression models

	Model 3		Model 4	
<i>Test of hypotheses</i>				
Experience with horizontal acquisitions			-0.015 †	(0.009)
Experience with related acquisitions			0.095*	(0.045)
Experience with related acquisitions ^2			-0.003 †	(0.002)
Horiz*Rel			-0.0009†	(0.0006)
<i>Control variables</i>				
ROA	-2.928	(1.427)	-1.604	(1.611)
Firm size	-0.490	(0.164)	-0.155	(0.189)
CEO change	0.807	(0.268)	0.828**	(0.266)
GDP growth	3.099	(0.754)	3.509***	(0.745)
Experience with greenfields	0.702	(0.219)	0.767**	(0.242)
Experience with JV	-0.193	(0.196)	-0.415†	(0.245)
Log Likelihood	-633.335		-595.449	
Wald test χ^2	78.05		124.20	
P-value χ^2	0.0000		0.0000	
No. of observations	5957		5957	

† p<0.10, * p<0.05, ** p<0.01, ***p<0.001
standard errors in parentheses
firm dummies not shown

In hypothesis 1b we expect a linear relationship between a firm's experience with foreign horizontal acquisitions and the probability of foreign horizontal acquisition success. The coefficient corresponding to the linear effect of the experience with horizontal acquisitions is negative and significant (p<0.1). This supports hypothesis 1b.

Next, hypothesis 2b posed that the relationship between experience with foreign related acquisitions and the probability of success of an acquired subsidiary in a horizontal business abroad is U shaped. The coefficient corresponding to the linear effect of the experience with foreign related acquisitions is positive and significant (p<0.05) and the

coefficient for the squared effect of experience with foreign related acquisitions is negative and significant ($p < 0.1$). Jointly these results indicate that inexperienced acquirers rushing with their acquisition process indeed cause the hazard of subsidiary dissolution to be high for low values of experience variable. The hazard of failure first increases until it reaches the maximum for the value of 38 of experience with foreign related acquisitions. Subsequently, the hazard decreases with higher levels of experience in acquiring domestic targets. This supports hypothesis 3b.

Finally, in hypothesis 3c we presumed that for the higher levels of experience with international acquisitions the U shaped relationship between experience with prior related acquisitions abroad and the successfulness of the foreign horizontal acquisitions will be weaker – i.e. the successfulness will be decreasing shorter, the higher the experience with horizontal acquisitions abroad, yet the overall shape of the relationship will be persistent of all the levels experience with horizontal acquisitions. Thus, we expected that the signs of the interaction between experience with international horizontal and related acquisitions would be negative. Consistent with this prediction, the interaction effect (variables were mean-centered) is negative and significant ($p < 0.1$). The plotted results for this hypothesis are presented in Figure 4.2.

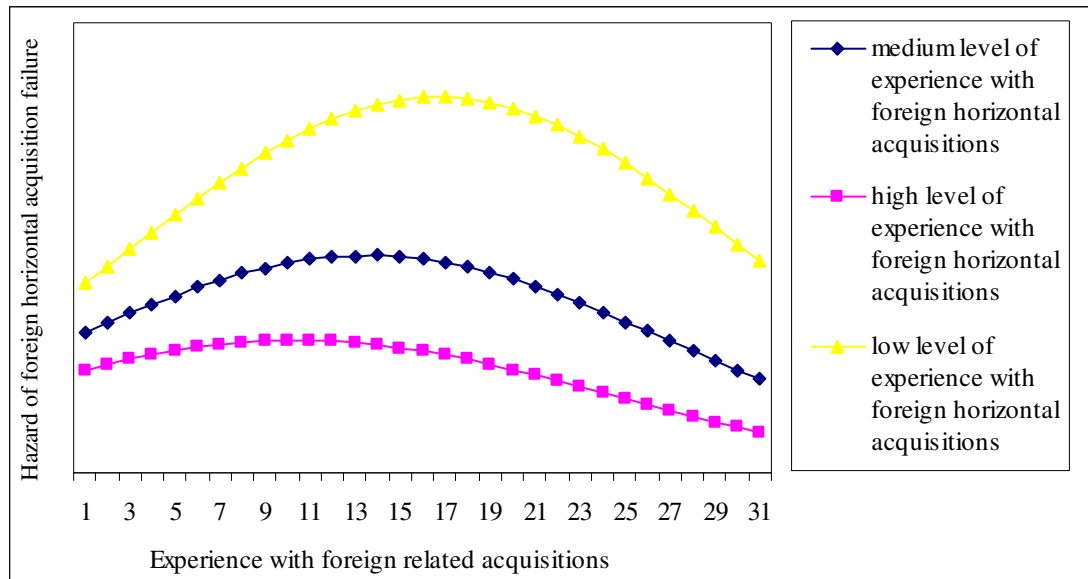


Figure 4.2. Relationship between experience with foreign related acquisitions and the hazard of foreign horizontal acquisition failure for different levels of experience with foreign horizontal acquisitions.

4.7. Discussion

International acquisitions in the companies' core industry are part of the every-day business of firms striving to survive in the globalizing and increasingly competitive world. Because of the substantial number of possible strategic fits in finance and management, high potential for building on and sharing existing resources and knowledge as well as economies in marketing and production previous research has acknowledged that horizontal and related acquisitions have higher chance of being successful as compared to the unrelated acquisitions (Donaldson, 1990, Flanagan, 1996, Flangan & O'Shaughnessy, 2003, Lubatkin, 1983, Haleblan & Finkelstein, 1999, Maquieira et al., 1998; Morck et al., 1990; Pangarkar & Lie, 2004). However, acquiring abroad confronts the acquirers with additional challenges including integration of the foreign targets, dealing with foreign cultures and new businesses abroad (Barkema et al, 1996, Johanson & Vahlne, 1977). Thus, in this paper we asked the question of how could firms learn to be successful with their horizontal acquisitions and what types of experiences prove to be useful for them.

In this paper, we analyze the effects of experience with foreign horizontal and related acquisitions on the frequency and performance of horizontal acquisitions. First of all, we find that prior experience with international horizontal acquisitions allows internationalizing acquirers to increase both the frequency and successfulness of acquiring in their core business abroad. We explain this finding by arguing that prior experience with horizontal acquisitions abroad confronts the international acquirer with the challenges that could be attributed to the fact that the acquisition has taken place abroad. In this way, we argue, internationalizing acquirers are able to learn what it means to acquire abroad, integrate their foreign targets, and connect the actions to outcomes - i.e. learn from their foreign operations. Secondly, we find that although prior experience with related acquisitions pushes firms to increase the frequency of acquiring in their core business from the start, companies are actually able to really benefit from their experience with related acquisitions abroad only as they have accumulated more knowledge about how to make them and how to transfer the lessons from the related industries to the core one (i.e. the relationship between prior experience with international related acquisitions and successfulness of horizontal acquisitions abroad is U shaped). This is mainly due to the fact that international related acquisitions confront international acquirers with at least two types of complexities – i.e. stemming from the operations in a new country and in a new (related) business. Hence, it is more challenging for international acquirers to attribute the specific causes to the actions that lead to them.

Finally, we find that the higher the experience with acquiring in the core business is, the easier it is for companies to benefit from their experience from related industries abroad.

These results suggest that that the requirements for what internationalizing acquirers have to learn and what kind of the experiences are likely to provide the valuable lessons change and differ for different stages of company's internationalization. Since firms can only learn one thing at a time (Goodman, Wood & Hendrickx, 2004) they are not able to benefit

from their more complex experiences easily, or without a strong background at doing something “simpler” or less complex.

With this paper we hope to add to the previous literature on acquisition experience and performance. It has suggested that firms learn best from their horizontal acquisitions, (Haleblian & Finkelstein, 1999), or conversely, from their prior experience with related acquisitions (Hayward, 2002). By simultaneously focusing at the kind of experience that is used to a one kind of acquisition we get more insights at how firms actually learn, when they misattribute and why.

Naturally, this study is not without limitations. First, our study explored firms headquartered in a single country (the Netherlands), which raises the issue of generalizability. Although doing single country studies also has advantages (in terms of controlling for potentially confounding influences), additional empirical research using samples from other countries or multiple countries would clearly add to the current study. Future research may provide more insights in this respect.

The firm’s ability to learn from previous experience may vary with the firm’s organizational characteristics. For instance, it may depend on the characteristics of its top management team, or its organizational structure. Future research uncovering how these and other factors influence the relationship between previous experience and acquisition performance would clearly complement the current study as well.

Conclusions

Chapter 5

Conclusions

5.1. Major outcomes

In an era of rapid technological progress and major political and economic transformations across the globe (Barkema, Baum & Mannix, 2002, Ghoshal, 1987, Hitt, Hoskisson, & Kim, 1997), the ability to acquire internationally becomes an important skill for internationalizing companies. Cross border mergers and acquisitions are growing rapidly in importance precisely because they provide firms with the fastest way of acquiring tangible and intangible assets in different countries (Cartwright & Cooper, 1993, Morosini, Shane & Singh, 1998). That is why over the past decade we observed that the most growth in international expansion has been via cross border mergers and acquisitions (UNCTAD, 2005). However, it has been suggested that, for example, due to problems with coordinating and reconfiguring resources in an internationally dispersed network, transferring best practice across units, retaining key personnel and exchanging knowledge across geographically scattered units (Anderson, Havila & Salmi, 2001, Cannella & Hambrick, 1993, Sirower, 1997) a lot of international acquisitions fail or underperform (Bergh, 2001, Datta, Pinches & Narayanan, 1992, Donaldson, 1990, Kaplan & Weisbach, 1992, Jensen, 1988, Markides & Oyon, 1998, Porter, 1987, Ravenscraft & Scherer, 1987).

Much research has been conducted in order to determine the conditions under which acquisitions have chances to be successful – among others acquirer and target relatedness (Donaldson, 1990, Lubatkin, 1983, Flanagan, 1996, Flangan & O'Shaughnessy, 2003, Haleblan & Finkelstein, 1999, Hayward, 2002, Kaplan & Weisbach, 1992, Matsusaka, 1993, Maquieira et al., 1998, Morck et al., 1990), acquiring companies' motives (Amihud & Lev, 1981, Baumol, 1967, Chatterjee, 1986, Dundas & Richardson, 1980, Hayward & Hambrick, 1997, Hill & Hoskisson, 1987, Marris, 1964, Singh & Montgomery, 1987, Roll, 1986, Williamson, 1963) and prior acquisition experience (Burton, Oviatt & White, 1994, Fowler &

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Schmidt, 1989, Hayward, 2002, Hitt et al., 1998, Lahaey & Conn, 1990, Vermeulen & Barkema, 2001, Zollo & Singh, 2002).

While researchers in International Business have often argued that it is important for internationalizing companies to learn (Barkema, Bell & Pennings, 1996, Delios & Beamish, 2001, Johanson & Vahlne, 1977, Lu & Beamish, 2004, Pedersen & Petersen, 2004, Uhlenbruck, 2004) to increase the likelihood of being successful abroad, this argument has received mixed empirical support in the domain of acquisitions. Some studies, for example, have argued that experienced acquirers are more successful than companies without acquisitions experience (Fowler & Schmidt, 1989, Hitt, Harrison, Ireland & Best, 1993). However, other studies have questioned whether acquisition experience is beneficial, because the value of such experience depends on the similarity of past targets to future targets, on the inferences made from prior experiences and how they are reapplied to current experiences. Hence, acquisition experience may not always enhance acquisition performance. Consistent with this idea, some studies have *not* found a significant positive relationship between acquisition experience and firm performance (Haleblian & Finkelstein, 1999, Lubatkin, 1983, Zollo & Singh, 2004).

To address these problems, building on the organizational learning literature (e.g., Levitt & March, 1988) this thesis develops arguments regarding the performance of foreign acquisitions. In addition to looking at the *success rate*, we develop a new theory and hypotheses about the *frequency* of international acquisitions (i.e., number of acquisitions per year). The attention for the pace of international acquisitions is consistent with the increasing importance of this strategic issue in practice (Barkema et al., 2002, Hitt et al., 1998) and with recent work examining the pace of expansion of companies (Dierickx & Cool, 1989, Hayward, 2002, Vermeulen & Barkema, 2002). However, previous research has typically treated pace as an implicit variable, measuring its implications in terms of performance, and

implicitly assumed that the (optimal) acquisition pace is constant over time. This thesis develops the argument that if internationalizing companies learn, they replace (time and attention devoted to) cognitive effort by routines (Cyert & March, 1963, Levitt & March, 1988, Nelson & Winter, 1982). Hence, we hypothesize that when internationalizing acquirers learn they are able to successfully increase the frequency of acquisitions over time. Predictions regarding the frequency of foreign expansion by acquisitions in combination with our predictions regarding the performance of those expansions allow us to draw conclusions about the hypothesized learning effects and hopefully gain a better understanding of the mechanism of organizational learning in case of very complex experiences.

Prior studies have typically focused on acquisition experience per se as a potential source for learning to handle acquisitions, without distinguishing between foreign and domestic acquisitions (Burton, Oviatt & White, 1994, Fowler & Schmidt, 1989, Hayward, 2002, Hitt et al., 1998, Lahaey & Conn, 1990, Vermeulen & Barkema, 2001, Zollo & Singh, 2004). In this thesis we develop theory and hypotheses about different types of experience of internationalizing companies as sources of knowledge and routines for acquiring abroad: international acquisition experience, domestic acquisition experience, international joint venture experience, and international greenfield experience.

In chapter 2 we analyzed what experiences could be useful for international acquirers and how companies learn to use them. Based on the analysis of experience with prior foreign and domestic acquisitions as well as with foreign joint ventures we argued that in order to become a successful acquirer companies have to develop two types of routines (c.f. Levitt & March, 1988). The first sort (built relatively easily and quickly) allows companies to increase the efficiency of the process of international expansion by acquisitions and hence to increase the frequency of acquiring in the foreign markets. The second type (that requires more time and effort to be developed) routinizes the process of deciding which routines should be

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applied to which problems and to which settings. We argued that when internationalizing companies initially misapply past knowledge and routines from their existing “repertoire” (Levitt & March, 1988) and are not able to align the two kinds routines with each other (which happens when they are not experienced), the performance of their acquired units was decreasing. Yet, over time, through trial and error, when companies develop the second type of routines (next to the “efficiency” routines), they are able to increase the successfulness of their foreign acquired subsidiaries.

In chapter 3 we attempted to answer the question of why firms increase the frequency of acquiring abroad even though they are not prepared and skilled to do so. We drew attention to various managerial biases (including self-serving bias, illusion of control) at different levels of the company’s acquisition experience. We suggested, and found consistent with the argument, that it was the underestimation of problems related to international acquisitions and managerial overconfidence that pushed the companies to increase the number of acquisitions per year and consequently increasing the likelihood of costly mistakes being made and acquisitions failing. We proposed also that when the accumulated problems and many acquisitions divestitures could no longer be ignored, companies slow down to learn and analyze their experiences. After the slow down, the number of foreign acquisitions per year can increase again to higher levels than before, this time with an increasing success rate. We found that mechanism to be valid for learning from prior experience with international acquisitions and international greenfields.

Finally, in chapter 4 we zoomed in on one type of acquisitions - i.e. international horizontal acquisitions, to discover how firms learn to be successful with them. To find out why it becomes difficult for companies to comprehend their experiences we focused our attention on both the experience that is used as well as the kind of acquisitions this experience is applied to. We built on an idea that firms can only learn one thing at a time and analyzed

what are the effects of experience with foreign horizontal and related acquisitions at different levels of experience with horizontal acquisitions on the frequency and performance of horizontal acquisitions. We argued that international horizontal acquisitions confront the international acquirers with one dimension of complexity that they need to deal with – i.e. the new foreign markets and cultures. International related acquisitions, in turn, involve dealing with at least two levels of complexity – i.e. new business and new foreign cultures, which makes it more challenging to learn from. We find, however, that firms experienced in acquiring abroad in their core business are able to benefit from their experience with related acquisitions more easily.

Overall, research presented in this thesis contributed to understating the process by international expansion of acquisitions by looking at both their frequency and successfulness. It also shed some light on the problems of why firms misattribute their experiences (overconfidence) and what they misattribute.

On a more practical note, the results of this thesis seem to suggest that companies should be aware that it takes time to develop all the necessary routines, especially the skill of attributing experiences as well as linking actions to outcomes correctly. Companies could also consider starting their international expansion in their core business or with something fairly familiar to them. Finally, companies should be careful, not overestimate their skills, actively search for signals from their environment that could verify their performance and should not ignore the signs of being unsuccessful.

5.2. Limitations and future research

Much future research is needed to fully understand the mechanisms of learning to acquire abroad from various types of firms' own experience which also marks the limitations of this thesis.

First of all, problems analyzed in this thesis, including how firms learn from their prior experience and why they misattribute and misgeneralize, are the types of problems that would call for a multilevel study. Studies linking the data on managerial perception (and for example impact of their demographics, the diversity of the TMT, its prior experiences) and the actual behavior of a firm would clearly add to our understanding of the problem of why exactly firms increase their frequency of international expansion when they are not prepared for it, what exactly do they misinterpret, what is the hardest for them to transfer when learning.

Secondly, this research has focused solely on international acquisitions. Another fruitful area for future research could be to analyze the mechanism of learning for other types of foreign markets entry modes. Moreover, company's own expansions are not the only source of company's experience. Future research analyzing other potential sources of organizational experience (like for example experience of other companies in a given market and or industry) and how organizations learn to apply the lessons from these experiences to their international acquisitions, would clearly add to the thesis.

Thirdly, the combination of frequency and success used in this study to derive conclusions regarding the hypothesized organizational learning effects lies on an assumption that increased frequency of international expansion by acquisitions is the consequence of organizational learning. Increased frequency of international expansion by acquisitions could be alternatively treated as a antecedent of organizational learning (implying that it is possible to learn and see the potential patterns only when doing things repeatedly). Another potential

criticism of the frequency is that although it takes firms down the learning curve faster, allowing for more trials and errors, it also reduces time to reflect. The three studies presented in this thesis confirm that increased frequency indeed reduces time to reflect and thus should not be undertaken by inexperienced companies, that need more time to consider their new experiences, which consequently decreases their performance. Future studies disentangling this possible effect would clearly add to our understanding of these processes.

There is an old English expression: "once bitten, twice shy". This could suggest that a firm with bad prior experience will be less likely to acquire again. This could suggest that repeated expansion efforts could be driven by economic imperatives that are impervious to previous outcomes, i.e. learning is irrelevant when a firm has decided *ex ante* that it needs to expand, no matter what the cost. Alternatively, some firms might be much more selective in their choice of expansion targets, but not change their routines for managing those targets. Although some care was taken to possibly rule out this possibility by including the control variables and firms' fixed effects, additional measures could be applied (including for example Heckman correction models).

Finally, despite the globalization trends (c.f. Hitt et al, 1998) firms originating from other institutional and cultural environments may differ in terms of their strategic behavior from Dutch firms, originating from relatively small, open economy. While other, for instance, European companies, may follow similar patterns, firms from countries with large domestic markets, less dependent on international business may differ considerably from the Dutch firms. Future research might shed light on relative importance of these differences and, therefore, the generalizability of the results of this thesis. Replicating this research in other national and industrial settings, as well as using different measures of acquisition performance, for example by analyzing the accounting and/or financial subsidiary level

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performance data would help establishing to what extent our results are specific to the context and method used

Nederlandse Samenvatting (Dutch Summary)

Nederlandse Samenvatting (Dutch Summary)

In een tijdperk van snelle technologische vooruitgang en grote politieke en economische veranderingen wereldwijd (Barkema, Baum & Mannix, 2002, Ghoshal, 1987, Hitt, Hoskisson, & Kim, 1997) wordt het vermogen internationaal te werven een belangrijke vaardigheid voor bedrijven die zich willen uitbreiden in het buitenland. Internationale fusies en overnames winnen snel aan belangrijkheid omdat deze bedrijven op de snelste manier tastbare en niet-tastbare bezittingen verschaffen in diverse landen (Cartwright & Cooper, 1993, Morosini, Shane & Singh, 1998). Dat is ook de reden waarom we gedurende het laatste decennium de grootste groei in internationale productie via internationale overnames en fusies hebben waargenomen (UNCTAD, 2000). Echter, vanwege problemen met het coördineren en herconfigureren in een internationaal netwerk, het overbrengen van “best practice” tussen eenheden, het vasthouden van belangrijk personeel en het uitwisselen van informatie tussen geografisch verspreide bedrijfseenheden (Anderson, Havila & Salmi, 2001, Cannella & Hambrick, 1993, Sirower, 1997) mislukken veel internationale overnames of zijn de resultaten beneden verwachting (Bergh, 2001, Datta, Pinches & Narayanan, 1992, Donaldson, 1990, Kaplan & Weisbach, 1992, Jensen, 1988, Markides & Oyon, 1998, Porter, 1987, Ravenscraft & Scherer, 1987).

Er is veel onderzoek gedaan naar de voorwaarden waaronder internationale overnames succesvol kunnen zijn. Belangrijk zijn onder andere hoe de bieder en het doel gerelateerd zijn (Donaldson, 1990, Lubatkin, 1983, Flanagan, 1996, Flangan & O’Shaughnessy, 2003, Haleblan & Finkelstein, 1999, Hayward, 2002, Kaplan & Weisbach, 1992, Matsusaka, 1993, Maquieira et al., 1998, Morck et al., 1990), de motieven van bedrijven die een overname willen doen (Amihud & Lev, 1981, Baumol, 1967, Chatterjee, 1986, Dundas & Richardson, 1980, Hayward & Hambrick, 1997, Hill & Hoskisson, 1987, Marris, 1964, Singh & Montgomery, 1987, Roll, 1986, Williamson, 1963) en eerder opgedane ervaring met overnames (Burton, Oviatt & White, 1994, Fowler & Schmidt, 1989, Hayward, 2002, Hitt et

al., 1998, Lahaey & Conn, 1990, Vermeulen & Barkema, 2001, Zollo & Singh, 2002). Hoewel het tegenwoordig algemeen geaccepteerd is dat het leren van overname-ervaringen één van de belangrijkste manieren is om succesvolle routines voor het doen van overnames te bouwen, is ons begrip van welke ervaringen nuttig kunnen zijn voor bedrijven die een overname willen doen en op welke manier deze bedrijven gebruik maken van eerdere ervaringen beperkt. De drie studies die in dit proefschrift worden gepresenteerd dragen bij aan de literatuur door deze kwesties expliciet te behandelen. Om te begrijpen hoe organisaties leren van hun ervaringen is het niet alleen van belang om de performance van hun overnames in ogenschouw te nemen, maar ook het aantal overnames.

In hoofdstuk 2 hebben we geanalyseerd welke ervaringen nuttig kunnen zijn voor bedrijven die een overname willen doen in het buitenland. Daarbij onderzoeken wij hoe bedrijven deze ervaringen leren te gebruiken. Gebaseerd op een analyse van ervaringen met nationale en internationale overname alsmede met buitenlandse joint ventures hebben we geconcludeerd dat bedrijven die succesvol een overname willen verrichten, twee soorten routines ontwikkeld moeten worden (zie Levitt & March, 1988). De eerste soort (relatief gemakkelijk en snel te bouwen) leidt tot een efficiënter proces van internationale uitbreiding door overnames en daardoor tot een hogere frequentie van overnames in het buitenland. Het tweede type routiniseert het proces van welke routines toegepast zouden moeten worden op welke problemen en onder welke omstandigheden. We vonden dat wanneer bedrijven die internationaal uitbreiden deze twee routines niet met elkaar kunnen verbinden (hetgeen gebeurt wanneer de bedrijven onervaren zijn), het prestatieniveau van de aangekochte eenheden daalt. Wanneer bedrijven het tweede soort routine (naast de efficiency routines) ontwikkelen dan zijn ze in staat het succes van hun buitenlands aangekochte eenheden te laten vergroten.

In hoofdstuk 3 trachtten we een antwoord te geven op de vraag waarom bedrijven de frequentie van overnames in het buitenland verhogen terwijl ze niet voldoende uitgerust zijn en voldoende kennis hebben om dit te doen. We hebben aandacht geschonken aan verschillende vormen van vooringenomenheid door managers (waaronder “self-serving bias” en “illusion of control”) voor verschillende niveaus van overname-ervaring. We vonden dat de onderschatting van problemen en overmoedige managers hebben geleid tot een stijging van het aantal overnames per jaar en daardoor ook tot een hogere kans op kostbare fouten en mislukte overnames. We hebben ook waargenomen dat wanneer de gecumuleerde problemen en geannuleerde overnames niet langer genegeerd kunnen worden, bedrijven hun overnamedrift temperen om te kunnen leren en hun ervaringen te analyseren. Na de temporisatie kan het aantal overnames in het buitenland weer stijgen naar hogere waarden dan daarvoor, maar dan wel een hogere succesratio. Dat mechanisme is valide voor het leren van eerdere ervaring met internationale overnames en internationale greenfields.

Tenslotte hebben we ons in hoofdstuk 4 gefocust op één bepaald type overname, namelijk de internationale horizontale overname. We hebben dit gedaan om te ontdekken hoe bedrijven leren succesvol te zijn in het geval dit type overname wordt toegepast. Om uit te vinden waarom het moeilijk is voor bedrijven om hun eigen ervaringen te begrijpen, hebben we onze aandacht toespitst op zowel de ervaring die is gebruikt als het soort overname waarop deze ervaring is toegepast. We baseerden ons daarbij op het idee dat bedrijven maar één ding tegelijkertijd kunnen leren. Daarbij hebben we geanalyseerd wat de effecten zijn internationaal horizontale en internationaal gerelateerde overnames voor verschillende niveaus van ervaring op de frequentie en prestaties van horizontale overnames. We hebben beargumenteerd dat bedrijven die een international horizontale overname willen doen geconfronteerd worden met één niveau van complexiteit, namelijk de buitenlandse markten en culturen. Aan de andere kant hebben internationaal gerelateerde overnames tenminste twee

niveaus van complexiteit te weten nieuwe bedrijfsvoeringen en nieuwe buitenlandse culturen. We vinden echter dat bedrijven die ervaren zijn in buitenlandse overnames in hun core business makkelijker in staat zijn te profiteren van hun ervaringen met related acquisitions.

Over het geheel gezien draagt het onderzoek gepresenteerd in dit proefschrift bij aan het begrijpen van het proces van internationale uitbreidingen of overnames door te kijken naar zowel de frequentie als het succes van overnames. Het onderzoek verschaftte ook enig inzicht in vragen als waarom bedrijven hun ervaringen verkeerd interpreteren (overschatting van zichzelf wordt toegeschreven aan de omstandigheden) en wat ze precies verkeerd interpreteren.

Vanuit een praktischer oogpunt gezien lijken de resultaten van dit proefschrift te suggereren dat bedrijven zich bewust moeten zijn dat het tijd kost om alle noodzakelijke routines te ontwikkelen, vooral de vaardigheid van het correct interpreteren van ervaringen en het correct linken van acties en uitkomsten. Bedrijven zouden ook kunnen overwegen hun internationale expansie te beginnen in hun core business of in iets dat bekend is bij hen. Tenslotte zouden ondernemingen voorzichtig moeten zijn, hun capaciteiten niet moeten overschatten, actief moeten zoeken naar signalen uit hun omgeving die hun prestaties zouden kunnen verifiëren en ze zouden de signalen die wijzen op mislukking niet moeten negeren.

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